JEPPIAAR INSTITUTE OF TECHNOLOGY

SELF BELIEF | SELF DISCIPLINE | SELF RESPECT
KUNNAM, SUNGUVARCHATRAM, SRIPERUMBUDUR, CHENNAI- 631604

On 24 & 25 th July 2020

CONFERENCE PROCEEDINGS

INTERNATIONAL CONFERENCE ON RECENT INNOVATIONS IN SCIENCE, ENGINEERING AND TECHNOLOGY (ICRISET)

Organized By:

CSE, IT, ECE, EEE, MECH, S&H

INTERNATIONAL CONFERENCE ON RECENT INNOVATIONS IN SCIENCE, ENGINEERING AND TECHNOLOGY

ICRISET 2020

In Association with

24ᵗʰ & 25ᵗʰ July

PROCEEDINGS

Organized by

JEPPIAAR INSTITUTE OF TECHNOLOGY

"Self-Belief | Self Discipline | Self Respect"

Kunnam Sunguvarchatram, Sriperumbudur, Tamil Nadu 631604

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JEPPIAAR INSTITUTE OF TECHNOLOGY

"Self - Belief | Self Discipline | Self Respect"

VISION

"Jeppiaar Institute of Technology aspires to provide technical education in futuristic technologies with the perspective of innovative, industrial and social application for the betterment of humanity."

MISSION

- To produce competent and disciplined high-quality professionals with the practical skills necessary to excel as innovative professionals and entrepreneurs for the benefit of the society.

- To improve the quality of education through excellence in teaching and learning, research, leadership and by promoting the principles of scientific analysis, and creative thinking.

- To provide excellent infrastructure, serene and stimulating environment that is most conducive to learning.

- To strive for productive partnership between the Industry and the Institute for research and development in the emerging fields and creating opportunities for employability.

- To serve the global community by instilling ethics, values and life skills among the students needed to enrich their lives.

MESSAGE FROM THE MANAGING DIRECTOR

On behalf of Jeppiaar Institute of Technology I extent my warm and heartfelt welcome to the International Conference on Recent Innovations in Science, Engineering and Technology (ICRISET). I am excited to see the level of interest in the conference and I hope that you will enjoy your time with us and gain much from your engagement, participation and the researchers you will meet. I believe that this conference will guarantee a successful technical platform to enrich technical knowledge in various streams of Emerging Engineering Technologies.

ICRISET provides an opportunity for the meeting of International Researchers, Engineers, Scientists, and specialists in the various research and development fields of Engineering and Technology. The conference offers a premise for global experts to gather and interact intensively on the topics of Mechanical, Electrical and Electronics, Electronics and Communication, Computer Science and Information Technology. I hope eminent speakers will cover the theme on Science, Engineering and Technology from different perspectives. I am privileged to say that this conference will definitely offer suitable solutions to the global issues.

I hope that the conference serves as a locus for interdisciplinary, a space for discourse and collaboration. I would like to express my appreciation to the organizing committee for their dedicated efforts to materialize the conference. I hope all the participants will have a fruitful and beneficial experience. In a nutshell, the conference promises to transcend to a new and unprecedented level of excellence.

Dr.N.Marie Wilson. B.Tech., M.B.A.,Ph.D.
Managing Director
Jeppiaar Institute of Technology

MESSAGE FROM THE PRINCIPAL

Warm and Happy greetings to all. I am immensely happy that our Institution is organizing an International Conference on Recent Innovations in Science, Engineering and Technology – "ICRISET" on 24th and 25th, July 2020.The Conference aims to bring different ideologies under one roof and provide opportunities to exchange ideas, to establish research relations and to find global partners for future collaboration.

I am confident that the conference discussions and the publication of the conference proceeding will bring opportunities among the academicians, corporate delegates, Research scholars and students to present their innovative ideas, most up-to-date findings and technical proficiency in the various fields of Research trends in Science, Engineering and Technology. Sessions on different domains, keynote addresses from eminent professors and opportunity to network with the researchers will help the participants immensely in their research career.

On behalf of Jeppiaar Institute of Technology, I welcome all the participants and convey my best wishes for "ICRISET".

Dr.L. M.Merlin Livingston ,M.E.., Ph.D.
Principal
Jeppiaar Institute of Technology

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ABOUT THE COLLEGE

Jeppiaar Institute of Technology(A Christian Minority Institution), establishes in the year 2011 with the primary objective of rendering futuristic technical education with the perspective of Innovative,Indutrial and Social application of for the betterment of humanity. Since its inception, Jeppiaar Institute of Technology propels relentlessly towards fulfilling its vision with the continuous support of our faculty and student community. AICTE approval and affiliation with Anna University had given access to the Institution for progressive intake of students for the continuous development during the years. Also, the Institution with extensive infrastructure stands out in Sriperumbudur for inculcating **Self-Belief, Self-Discipline and Self-respect.**

Jeppiaar Institute of technology is the first Institution in India to establish a laboratory with the incorporation of 'Innovative Cloud Computing Technology'. All the classrooms are CAI (computer Aided Instruction) enabled with wall mount Multimedia LCD Projectors, to make full use of the modern teaching aids. Presently, the college offers five professional under-graduate engineering programs namely B.E. Computer Science and Engineering, B.E. Electronics and Communication Engineering, B.E. Electrical and Electronics Engineering, B. Tech Information Technology and B.E. Mechanical Engineering

Apart from the Curriculum, extra-curricular syllabus is also framed to connect the industry close to the institute as they find the best talents by the Value Added programs that the institute offers. BEC certification helps a student develop their listening, speaking, reading and writing skills. Also, technical skills are made strong by giving an exclusive training programs like **JAVA, ROBOTICS, 3D PRINTING, DRONE, MACHINE LEARNING, ANDROID, INTERNET OF THINGS(IoT), EMBEDDED SYSTEM** which are approved by Anna University.

PROFESSIONAL BODIES like The Computer Society of India **(CSI)**, in the campus makes the most to share their knowledge and exchange their ideas in the progressive world of technology. **ASME, SAE, The IEEE students' Chapter, IEEE Women in Engineering, Robotics and Automation Society** in the campus are vibrant in connecting to break through technical information and put them in an open platform for regular updates.

Dr. Abdul Kalam's Centre of excellence is the primary center for the students to innovate and extrapolate their ideas in the form of mini and major projects. The intangible assets of our organization (both students and faculties) are identified and their research works are patented via **Intellectual Property Rights Cell**. This provides a conducive environment for performing research and to working on its development.

Another creative embodiment is the "**DESIGN THE THINKING WITH INTELLECT**"(approved by Anna University) which nurtures the culture of intellectual thinking in all aspects of life focusing on preparing the design mind based on a tool called **Empathy**.

On understanding the usage and development of Unmanned vehicles in military and civilian fields, an additional course which is also approved by Anna University, naming the title "**UNMANNED VEHICLE**" is been conducted inside the campus.

Robotic Process Automation (RPA) is another Exclusive program initiated towards student's community in association with **Automation Anywhere**. Which enables to develop the bots through configurable software set up and to create own software robots to automate any business process to perform the tasks you assign and control.

Students also volunteer themselves by associating with **NSS, NCC, YRC, Higher studies, Rotary Club** to develop significant skills and exhibit their non-academic abilities and complement the curricular activities by the "**Art of living and working together**".

To motivate the highly prepared students, extra efforts are taken by the management in sponsoring them to attend a week's program for having hands-on technical training (all disciplines) in **Advanced Technical Institute (ATI)** conducted by **Government of India.**

As a part of student upliftment, an initiative has been taken to offer scholarships for higher study preparation programs such as **CAT and GATE** in the name of the founder Col.Dr.Jeppiaar. Also to stimulate the Torch Bearers of the institution, students and faculties are given benefits worth of Rs. 60Lakhs.

In the field of sports and games, the college ranks among the top ten in the state and the college organizes Jeppiaar Trophy, a national level basketball tournament every year in which all the potential basketball teams in the country take part.

Along with well-equipped laboratories and workshops, the institution supports and provides opportunities for prospective students and staff to be associated with major industries to gain experience in respective field and to equip themselves as professional engineers. While aspiring to build sustainable partnerships with industries in India and making the students "**Industry Ready**", our institution cherishes its association with many Multinational companies and core Industries.

About **90%** of students of the **2011, 2012 ,2013, 2015** batch have been placed through campus recruitment process in the reputed Multi-National Companies like **Wipro, Infosys, CTS, Amazon, Solarities, Softura, Data Patterns, Info View, Mind tree, and Emphasis, One Globe, Zoho, Super Auto Forge, NTT DATA, etc..** Which are the premier recruiting partners of the institution. Also, the remaining students are equally motivated to pursue their higher education and becoming an entrepreneur.

We have created and clocked with **206*** Companies opportunities from all verticals (Service based, Product Based & Core Industry) for our 2015-19 batch Students and 181 + *(Still in progress) Companies for 2016-20 batch till date.

Currently 91%* (Still in progress) percent of our final students 2016 – 20 batch have got placed in different MNCs such as L& T **INFOTECH , FRESHWORKS, HYUNDAI POLYTECH, FOURKITES, ZOHO , AMAZON, WIPRO, BYJUS, JARO EDUCATION, CTS, TCS,IBM, INFOSYS ,DATA PATTERNS, FULL CREATIVE, SOPRA STERIA, MPHASIS,TVS SUNDHARAM FASTENERS, CODING MART,COVIAM TECHNOLOGIES, BRAKES INDIA** etc. and many more companies are to visit to us throughout this year for achieving placements to all the eligible students.

DEPARTMENTS IN JEPPIAAR INSTITUTE OF TECHNOLOGY

CSE (COMPUTER SCIENCE ENGINEERING)

The **Department of Computer Science and Engineering (CSE)** was established in the year **2011** with the sanctioned intake of **60 students** to produce Engineers with visionary knowledge in the field of **Computer Science and Engineering** through scientific and practical education in stance of inventive, modern and communal purpose for the benefit of society. The Department has well qualified, experienced and dedicated faculty team, the state –of-the-art Infrastructure for various laboratories, a well-equipped seminar hall, Wi-Fi enabled classrooms to support e-learning with Projectors and a department Library. The Department is currently in the process of **NBA and NAAC** Certification. The department is regularly organizing Conferences, Symposium, Workshops, Project Expo, Hackathon and Coding Competitions, various technical and non-technical events through Professional society, technical and non-technical clubs to update the practical knowledge of students. The Department of Computer Science and Engineering is associated with Computer Society of India – Chennai Chapter **(CSI)** and Indian Society for Technical Education **(ISTE).**

IT (INFORMATION TECHNOLOGY)

The **Department of Information Technology (IT)** was established in the year **2011**.The Department has the state-of-the-art facilities for various laboratories, a well-equipped seminar hall, Wi-Fi enabled class rooms to support e-learning with Projectors and a department Library. **The Department is currently in the process of NBA and NAAC.** The training programs focus on enhancing their soft skills and programming ability. The Department of Information Technology is associated with Computer Society of India – Chennai Chapter **(CSI).** We have a strong Alumni team who are placed in well reputed MNCs' across the globe from **Coding Mart, Amazon**, etc., they make themselves available on the campus to help the students during the placement training process by conducting mock interviews, group discussions, guest lectures, and motivational talks.

ECE (ELECTRICAL AND COMMUNICATION ENGINEERING)

Department of Electronics and Communication Engineering (ECE) were established in the year **2011**. The Department has the state –of-the-art facilities for various laboratories, a well-equipped seminar hall, Wi-Fi enabled class rooms to support e-learning with Projectors and a department Library. The Department is currently in the process of National Board of Accreditation **(NBA)** and National Assessment and Accreditation Council **(NAAC).**The training programs focus on enhancing their soft skills and programming ability. The Department of Electronics and Communication Engineering is associated with Institute of Electrical and Electronics Engineers **(IEEE),** IEEE- Women in Engineering **(WIE),** Institution of Electronics and Telecommunication Engineers **(IETE)** and Indian Society for Technical Education **(ISTE).**We have a strong The Alumni team who are placed in well reputed MNCs' across the globe from Coding mart, Amazon, etc., they make themselves available on the campus to help the students during the placement training process by conducting mock interviews, group discussions, guest lectures, and motivational talk

EEE (ELECTRICAL & ELECTRONICS ENGINEERING)

Department of Electrical and Electronics started functioning in the year **2011** with a strive of establishing a Centre of excellence in technical education which in turn will bring out technocrats with superior skill and social commitment. Department is facilitated with well-equipped laboratories, high tech seminar hall, Wi-Fi enabled classrooms to support e-learning with Projectors and department Library. The Department is currently in the process of **NBA** and **NAAC**. Regular training programs are conducted to enhance the competence of our students. The training programs focus on enhancing their soft skills and programming ability. In addition to the co-curricular activities, a wide range of value-added courses are also available in order to improve and refine the overall potential of the students to the current trends in the Technology.

MECH (MECHANICAL ENGINEERING)

The **Department of Mechanical Engineering (ME)** was established in the year **2011** with the sanctioned intake of 60 students and increase in intake of 120 during The one of the ideal undergraduate program by the student community with a right intermingling theory and practical exposure in basics of mechanics, manufacturing, industrial, automation, energy, **CAD/CAM/CAE** and thermal spheres. The Department has the state-of-the-art facilities for various laboratories, a well-equipped seminar hall, Wi-Fi enabled classrooms to support e-learning with Projectors and a department Library. The Department is currently in the process of **NBA** and **NAAC**. The students are motivated to organize department symposium (**AGRONA**) and seminars to hone their organizing and leadership skills. The Department of Mechanical Engineering is associated with American Society of Mechanical Engineers (**ASME**) and Society of Automotive Engineers (**SAE**)**.**Students enjoys freedom to express their ideas through interaction with faculty and peers by participating in department technical clubs.

S&H (SCIENCE & HUMANITIES)

The **Department of Science& Humanities (S&H)** is established to support the undergraduate Programs of our institution. The department is **well equipped** with modern experimental setups and ample space for fledgling student's fraternity to achieve high standard of understanding and learning. The department has published many research papers in reputed international and national level science journal. The department is to broadly educate aspiring engineering students in the basics of **Mathematics, Physics, Chemistry and English** which serve as a platform for the growth of first year students in their further study of technical subjects.

ABOUT THE CONFERENCE

The conference **(ICRISET)** aims to provide a virtual platform for students**, researchers, academicians and Industry persons** to bring out and share their innovative ideas in various fields of **Science, Engineering and Technology**. A virtual conference provide flexibility and options that are not simply possible at an in-person event. The goals of **ICRISET** include broadening collaboration within the many fields of science, engineering and technology, creating higher-quality educational opportunities, building **professional skills and knowledge, strengthening professionalism and broadening networking opportunities**.

AREA OF FOCUS

- ➢ RPA-Next Frontier For Business
- ➢ Data Science in Health Care
- ➢ Machine Learning and Computational Intelligence
- ➢ Mobile and Ubiquitous Computing
- ➢ Information Reuse And Integration for Data Science
- ➢ Smart Grid
- ➢ Green Energy
- ➢ Power Electronics in Power Systems
- ➢ Biomedical Instrumentation and Its Applications
- ➢ Communication and Networking
- ➢ VLSI Design and Applied Electronics
- ➢ Thermal Engineering
- ➢ Energy Conversion and Management
- ➢ Advanced Manufacturing Technology
- ➢ Materials and Manufacturing Processes
- ➢ Automotive Engineering
- ➢ Industry 4.0 and IOT
- ➢ Green Chemistry
- ➢ Computational Chemistry
- ➢ Modern Materials &Opto -Electronics
- ➢ Optics & Spectroscopy
- ➢ Recent Trends in Pure and Applied Mathematics

ORGANISING COMMITTEE

CHIEF PATRON

Dr.N.MARIE WILSON, B.Tech., M.B.A.,Ph.D.

MANAGING DIRECTOR,
JEPPIAAR INSTITUTE OF TECHNOLOGY

PATRON

Dr.L.M.MERLIN LIVINGSTON, M.E.,Ph.D.

PRINCIPAL,
JEPPIAAR INSTITUTE OF TECHNOLOGY

CONVENERS

Dr.V.KANNAN

PROFESSOR, DEPARTMENT OF PHYSICS & HOD-S&H,
JEPPIAAR INSTITUTE OF TECHNOLOGY

Dr.C.KAVITHA

PROFESSOR, DEPARTMENT OF CHEMISTRY,
JEPPIAAR INSTITUTE OF TECHNOLOGY

Dr.S.VIJAYALEKSHMI

ASSOCIATE PROFESSOR, DEPARTMENT OF PHYSICS,
JEPPIAAR INSTITUTE OF TECHNOLOGY

Dr.B.RAJESH KUMAR

PROFESSOR, DEPARTMENT OF MECHANICAL ENGINEERING,
JEPPIAAR INSTITUTE OF TECHNOLOGY

STAFF COORDINATORS

Ms.N.R.GLADISS MERLIN

ASSOCIATE PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING,
JEPPIAAR INSTITUTE OF TECHNOLOGY

Ms.A.PARIMALA

ASSISTANT PROFESSOR, DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING,
JEPPIAAR INSTITUTE OF TECHNOLOGY

Mr.A.ANTONY CHARLES

ASSISTANT PROFESSOR, DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING,
JEPPIAAR INSTITUTE OF TECHNOLOGY

Ms.S.SCINTHIA CLARINDA

ASSISTANT PROFESSOR, DEPARTMENT OF INFORMATION TECHNOLOGY
JEPPIAAR INSTITUTE OF TECHNOLOGY

STUDENT COORDINATORS

G.R.VAISSHALLI, 2ND YEAR, CSE, JIT   V.KAVIYA, 2ND YEAR,CSE, JIT

S.ABINAYA, 2ND YEAR, CSE, JIT   J.LEKHA KAMALESHWARI, 2ND YEAR, CSE, JIT

D.R.HARI KRISHNA, 3RD YEAR, CSE,   S.BHUVANESHWAR KUMAR, 4TH YEAR, EEE, JIT

EMINENT SPEAKERS PROFILE

Dr. T.S.N. SANKARA NARAYANAN
School of Mechanical, Aerospace and Nuclear Engineering (MANE)
Ulsan National Institute of Science and Technology (UNIST)
Ulsan
Republic of Korea

Dr. Sankara Narayanan is a Research Scientist specialized in the areas of biomedical materials, surface engineering, tribocorrosion and nanomaterials. He obtained his doctoral degree in chemistry from University of Madras, Chennai, India in 1992. He was a postdoctoral fellow at Baylor University, Texas, USA during 1994-1997, senior research associate at Indian Institute of Technology Madras, Chennai, India during 1997-1998, scientist in CSIR-National Metallurgical Laboratory, Chennai, India during 1998-2012, visiting scientist under Brain pool program at Yonsei University, Seoul, Republic of Korea during 2005-2006, Research Professor at the Department of Dental Biomaterials, School of Dentistry, Chonbuk National University, Jeonju, Republic of Korea during 2012-2017 and Research Professor at Ulsan National Institute of Science and Technology (UNIST), Ulsan, Republic of Korea during 2018-2019. He has published 200papers and 10 book chapters. He is the principal editor of the two-volume series on Surface modification of magnesium for biomedical applications, published by Elsevier Science Publishers. He has two patents to his credit. He is a mentor. Motivating young researchers to achieve their goals is what he considered as his greatest asset. His papers have been cited more than 7158 times with h-index of 45 and i-10 index of 97. Besides his research and development work, he is also a freelance science writer and an educational consultant.

Dr. RAJAPANDIYANPANNERSELVAM
Research Scientist
Prof. DetlevBelder's Group
University of Leipzig, Germany

Dr. J.P. Rajapandiyan is currently working as a Research Scientist in Prof. DetlevBelder's group at the University of Leipzig, Germany. He received his Bachelors degree from PSG college of arts & science, and Master's degree (Analytical Chemistry) from University of Madras in 2009 (India). In 2014, he obtained his Ph.D. (Chemistry) from National Chung Hsing University (Taiwan) under the supervision of Prof. Jyisy Yang. Later, he worked as a postdoctoral fellow under the direction of Prof. Zhong-Qun Tian at State Key Laboratory of Physical Chemistry of Solid Surfaces, Xiamen University, China. Then he worked as a postdoctoral fellow (Prof. Richard A. Dluhy) in University of Alabama at Birmingham, Alabama, USA. His current research interests include surface-enhanced Raman spectroscopy, microfluidic devices, nanoparticle synthesis, and assembly.
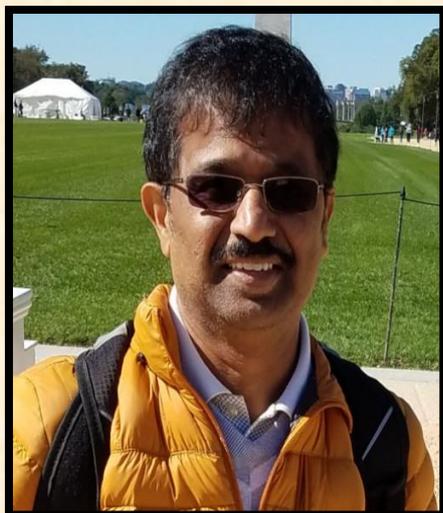
Dr. PAL M. THANGAMATHESVARAN

Senior Director,
Novitium Pharma, New Jersey, USA

Pal. M. Thangamathesvaran received his B.Sc., degree in Chemistry from Kongu, Kovai(University of Madras) and Masterdegree in Polymer Chemistry from AC Tech (University of Madras). He was also passed IAS prelims exam. He did his Ph.D. in Aerospace Engineering in IISc, Bangalore. He had an opportunity to meet with Dr. Kalam two times and discussedabout his project "synergistic hypergolic hybrid propellants".

He has Published several papers and presented in National and international conferences. Oneof the papers primarily cited in Samsung's 16 patents on organphotoreceptors.Then he did his postdoctoral fellowship in Nanyang Technological University, Singapore, July 1997-Feb 2001. He carried out research work on hydrogels and 'in-situ' composites based on thermo tropic liquid crystalline polymers. The hydrogels work in Langmuir is wellcited including for a nerve gel generation.

He was awarded best presentation in IoM Millennium seminar. He was presented many papers in International Conferences and in peer reviewedjournals, (one presentation in IUMRS in Beijing, China). And he was mentored projects on hydrogels, in-situ and natural fiber reinforced compositeswhich received Singapore National awards.

He taught Polymer Technology, Instrumentation and toxicity of polymers at NTU, Singapore. He joined as technical Director and developed patented versatile 2nd generation proprietary photochromic formulation (USPatent 6,773,108).Developed automated robot controlled dip coating process.Currently working as Senior Director at Novitium Pharma. Playing a role product selection, product development and advanced analytical techniques.

Dr. BALAJI SETH,
Professor and Program Director,
Department of Industrial Technology,
California State University, Fresno, USA

Dr. Balaji Seth is a Professor and Program Director in the Department of Industrial Technology at California State University, Fresno. He is an avid researcher and engineer with backgrounds in Mechanical, Industrial and Agricultural Engineering leading to over 30 peer reviewed publications and $3.5 million in grants and contracts. He is the recent recipient of prestigious Salgo-Noren Excellence in Teaching Award in 2020 instituted by Salgo-Noren foundation for teaching excellence as a stimulus and recognition for dedicated and inspirational teachers in the USA besides other academic honors spanning two decades of academic career. He is the past chair of the ASABE CA NV Section and active with ATMAE professional societies.

Dr. MOHAMMAD KHALID,
Professor& Head,
Graphene and Advanced 2D Materials Research Group
Sunway University, Malaysia

Professor Mohammad Khalid completed his bachelor's degree in Chemical Engineering from Visvesvaraya Technological University, India and MSc in Chemical and Environmental Engineering from University Putra Malaysia. Later, he continued his PhD at the International Islamic University, Malaysia and worked on developing radiation crosslinked rubber nanocomposites. Prior to joining Sunway University, Professor Khalid was Associate Professor in the Department of Chemical & Environmental Engineering at the University of Nottingham Malaysia Campus.

His research focuses on nanomaterial synthesis, heat transfer fluids, phase change materials, and energy harvesting. More specifically, he is currently working on solar energy harvesting using deep eutectic salts (DES) and carbon nanoparticles based nanolubricants to improve engine performance. His research expertise covers many other important areas such as polymer recycling, radiation processing of polymer blends and biofuel. He has published more than 100 papers in international journals and refereed international conferences, five patents and seven chapters in books.

Professor Khalid has more than 10 years of research and teaching experience. He has supervised 11 PhD, eight MSc and one MPhil students, and 13 of these students (four PhD, eight MSc and one MPhil) have graduated. He is also a chartered member of the Institution of Chemical Engineers (MIChemE) and a Fellow of the Higher Education Academy (FHEA), UK.

Dr. TOLETI SUBBA RAO
Senior Scientist,
IGCAR, Kalpakkam

Dr. Toleti Subba Rao graduated in Microbiology and has 32 years of research experience in the area of basic, applied and molecular microbiology. He obtained his Ph.D. in Biotechnology and specialized in the area of microbial biofilms. He is awaiting the award of D.Sc., degree from Periyar University. He made significant contributions in the area of biofouling, microbe-metal interactions, basic and practical aspects of industrial cooling water problems in power plants and chemical industries. Currently, he is focusing his research in developing new antifouling methods to control biofouling by designing super-hydrophobic, new biomimetic surfaces and also using phages for a novel biocontrol method. Dr. Rao is one of the architects of the biofouling test facility at Kalpakkam, to carry out simulation studies for industrial cooling water systems and biofouling control. He also made significant contributions in bioremediation of toxic pollutants using bacteria, cyanobacteria and fungi. Treating industrial effluents/wastewater using various microbial processes. He has published 102 research papers in reputed international journals and reviewed several manuscripts for many international journals. His papers have been cited more than1553 times with h-index of 21 and i-10 index of 34. His research contributions in microbial corrosion earned him many awards, he is a Fellow of The Academy of Sciences, and the Society for Applied Biotechnology.

Dr. JAYSHREE RAMKUMAR,
Senior Scientist,
Bhabha Atomic Research Centre, Mumbai

Dr. Jayshree Ramkumar joined Analytical Chemistry Division of Bhabha Atomic Research Centre Mumbai after completion of masters from University of Madras, Chennai.

She is involved in the development of newer procedures for separation and monitoring of different species using membranes and sorbents ranging from bulk to nano materials. Her Ph.D. was on the ion exchange and related studies using Nafion membrane. She has more than 65 contributions in international peer reviewed journals and as chapters in books to her credit in the field of separation science. She was awarded the MANA fellowship for her postdoctoral research on at the National Institute of Material Science (NIMS), Tsukuba, Japan.

She is recognized guide of Homi Bhabha National Institute, India and has been guiding students as a co guide for their PhD. She has been serving as principal and departmental nominated collaborator for BRNS and AERB projects related to separation of radionuclides and toxic species . She is in the Editorial Board of several Indian journals. She also serves as external examiner for evaluation of PhD thesis for different universities. She is also a doctoral committee member for PhD students of HBNI. She has given invited talks in several national and international conferences and also served as chairperson in various international conferences.

Dr. S. CHANDRA MOHAN,
Researcher and Post-Doctoral Fellow
Laboratory for Nanomaterials for Energy and Recycling,
Marcoule Institute for separation Chemistry,
CEA, Marcoule, France.

Dr. S. Chandramohan is a researcher and Post-Doctoral fellow at Laboratory for Nanomaterials for Energy and Recycling (LNER), Marcoule Institute for Separation Chemistry (ICSM), CEA, Marcoule, France. He was a post-doctoral fellow at CNRS - French National Centre for Scientific Research During the year 2018-2019. He has completed his under graduate and post graduate at St. Joseph's College Tiruchirappalli. Dr. Chandramohan received his Ph.D. from Anna University Chennai (BIT Campus) in 2018. His research interests includes Scintillators, Carbon dots, Polyoxometallates and Mesoporous monolith materials, Heterogeneous Photo catalysis and Photoelectro-catalysis , Organic-Inorganic hybrid Nanomaterials and Photo-Functional materials, DFT and Computational modelling studies. He has published more than 30 research publications in reputed International Journals and Conferences and 2 book chapters. His research publications were cited in more than 250 research publications worldwide.

Dr. NGANGBAM PHALGUNI SINGH

**Assistant Professor,
KL University,
Vijayawada**

Dr. Ngangbam Phalguni Singh is currently working as Assistant professor in KL UNIVERSITY, VIJAYAWADA with total 8 years of teaching experience. He received his bachelor degree from Anna university in the year 2009 followed by his post-graduation in the year 2012 in the specialization of VLSI design from Anna university. From 2012 to 2019, he was working as a lecturer in St.Joseph University in Tanzania. He completed his Doctrate in the University of Dares Salaam, Tanzania in the year 2019. Regarding his publication he published one book namely" "Memristors and its applications in VLSI Design" and published 9 papers in national and international conferences. He also published one patent namely A Kevlar Fibre Reinforced Composite. He also published many papers in research articles and participated in workshop, training programs and conferences. He is the member of professional bodies like IEEE and ISTE. He also mentored many projects related to ECE and won the best project in Tanzania which has been appreciated by the government of Tanzania.

Dr. P. SELVARAJ,
Professor, Department of EEE,
S V Engineering College.
Tirupati.AndhraPradesh 517507

Dr. P. Selvaraj obtained his BE Degree in Electrical and Electronics Engineering in 2000 from ManonmaniumSundaranar University Tirunelveli. ME Degree in Power Electronics and Drives from Sathyabama Institute of Science and Technology, Chennai in 2005.Ph.D Degree in Electrical Engineering from Anna university ,Chennai in 2018. He has 18 years of Teaching, and Research Experience in Engineering Colleges.His Research Area includes Power Electronics,Electrical Machines and Renewable Energy.He published many research papers in national, international journals and Conferences.He is a reviewer of International Journal of Latest Trends in Engineering and Technology and International journal of Engineering Research &Technology.

Dr. SARAVANA KUMAR CHELIAH

Associate Professor
Department of information technology,
St. Joseph's Institute of Technology
OMR,
Chennai-600119

Dr. C. Saravanakumar is currently working as an Associate Professor in the department of information technology, St.Joseph's Institute of Technology, OMR, Chennai. He received his Bachelor's degree (IT) from AVC College of Engineering, Mayiladuthurai, and Master's degree (CSE) from AarupadaiVeedu Institute of Technology, Chennai in 2003 and 2007 respectively.. In 2017, he obtained his Ph.D. (CSE) from Sathyabama University, Chennai under the supervision of Prof. C.Arun. Then he worked as a lecturer, Senior Lecturer and assistant professor in various engineering colleges. He has totally 50+ publications in international conference and journals level with two patent publications. He has totally 17 years of teaching experience. His current research interests include cloud computing, Distributed system, Machine Learning and Deep learning.

Dr. R.V.MANGALARAJA
PROFESSOR AND DIRECTOR,
DEPARTMENT OF MATERIALS ENGINEERING,
FACULTY OF ENGINEERING, UNIVERSITY OF
CONCEPCION

Dr. BALAJI SETHURAMASAMYRAJA
PROFESSOR,
DEPARTMENT OF INDUSTRIAL ENGINEERING,
JORDAN COLLEGE OF AGRICULTURAL SCIENCES
AND TECHNOLOGY,
CALIFORNIA STATES UNIVERSITY, FRESNO, CA,
USA

Dr. DIPAK RANA
PROFESSOR,
DEPARTMENT OF CHEMICAL ENGINEERING,
UNIVERSITY OF OTTAWA, ONTARIO, CANADA

Dr. S.PARTHIBAN
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AGENDA ON 24ᵀᴴ JULY 2020

Inaugural function (10:00 am – 11.30 am)	Welcome address	Dr. L. M. Merlin Livingston, M.E.Ph.D.Principal, JIT	Link :https://bit.ly/39k2lz2
	Invited Lecture	Dr.Jayshree Ram Kumar Senior Scientist, Bhabha Atomic Research Centre, Mumbai	
	Invited Lecture	Dr. Pal M. Thangamathesvaran Senior Director, NovitiumPharma, New Jersey, USA	

Invited Talk & Oral Presentation (11.30 AM to 12.30 PM & 1.00 PM to 4.30 PM)	Track – I - (CSE & IT) Presentation	Link – shorturl.at/iAHLP
	Track – II - (ECE & EEE) Invited Talk Dr. Nganbam Phalguni Singh Assistant Professor KL University, Vijayawada & Presentation	Link - shorturl.at/fuEX1
	Track – III - (MECH) Invited Talk Dr. Balaji Seth, Professor and Program Director, Department of Industrial Technology, California State University, Fresno, USA & Presentation	Link - shorturl.at/oAEH2
	Track – IV - (S & H) Presentation	Link - https://bit.ly/39k2lz2

AGENDA ON 25ᵀᴴ JULY 2020

Invited Talk & Oral Presentation **(10:00AMto12:30PM)**	**Track – I - (CSE & IT)** **Invited Talk** **Dr. SARAVANA KUMAR CHELIAH** **Associate Professor** **Department of information technology,** **St. Joseph's Institute of Technology** **OMR, Chennai-600119** **& Presentation**	**Link – shorturl.at/iAHLP**
	Track – II-(ECE & EEE) **Invited Talk** **Dr. Toleti Subba Rao** **Senior Scientist,** **IGCAR, Kalpakkam** **Dr.P. Selvaraj,** **Professor, Department of EEE,** **S V Engineering College.** **Tirupati. Andhra Pradesh 517507** **& Presentation**	**Link - shorturl.at/fuEX1**
	Track – III - (MECH) **Presentation**	**Link - shorturl.at/oAEH2**
	Track–IV-(S&H) **Invited Talk:** **Dr. Mohammad Khalid,** **Professor & Head,** **Graphene and Advanced 2D MaterialsResearch Group Sunway University,Malaysia** **Dr. S. Chandra Mohan,** **Researcher and Post-Doctoral Fellow Laboratory for Nanomaterials forEnergy and Recycling,** **Marcoule Institute for separation Chemistry, CEA, Marcoule, France.** **& Presentation**	**Link - https://bit.ly/39k2Iz2**

Valedictory Ceremony **(1.00 PM** **To** **4.30 PM)**	**Invited** **Lecture**	**Dr. Rajapandiyan** **Research Scientist** **Prof. Detlev Belder's Group** **University of Leipzig, Germany**	
	Invited **Lecture**	**Dr. T.S.N. Sankara Narayanan** **School of Mechanical, Aerospace** **and Nuclear Engineering(MANE)** **Ulsan National Institute of Science** **And Technology(UNIST)** **Ulsan,** **Republic of Korea**	**Link -** **https://bit.ly/39k2lz2**
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69	T2007	Design of Low Power and High Speed recursive Parallel Multiplier.	[1]Elanchezian P.K, [2]Hariharan S, [3]Ravichandran R.S, [4]Vasanth Kumar S, [5]Siva M	[1,2,3,4]UG Scholar, [5]Assistant Professor, [1,2,3,4,5]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	130
70	T2008	Forest Monitoring and Alert System.	[1]Hemapriya S.T, [2]Sathya R, [3]Swathika G, [4]Dr.R.Uma, [5]Mahalakshmi P	[1,2,3]UG Scholar,[4,5]Associate Professor [1,2,3,4,5]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	131
71	T2009	Design of 3×3 Reversible Gate using Combinational Circuits.	[1]Sumantha N, [2]Vishnupriya A, [3]Priyanka S, [4]Siva.M	[1,2,3] UG Scholar,[4]Assistant Professor [1,2,3,4]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	132
72	T2010	Soft Robot Locomotion through Environment Growth.	[1]Ragul Kannan R, [2]Rubala R, [3]Sriram Manish Kumar E, [4]Vijayanand R, [5]Gogul Kannan R	[1,4,5]UG Scholar, [2]Assistant Professor, [3]E-Lecturer,[1,2,4,5]Jeppiaar Institute of Technology, [3]Annamalai Polytechnic College, Tamilnadu, India.	133
73	T2011	Development of Receiver SNR Ratio using Diversity Combining Techniques.	[1]Ragul Kannan R, [2]Rubala R, [3]Dr.S.Arul, [4]Vijayanand R, [5]Gogul Kannan R	[2]Assistant Professor, [3]Assistant Professor, [1,4,5]UG Scholar, [1,2,3,4,5]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	134
74	T2012	Alerting and Breakage Detection in High Voltage Transmission Lines	[1]Ms.D.Satheeswari, [2]Dr.Leninisha Shanmugam, [3]R.Divya Lakshmi, [4]V.Harishreya	[1]Assistant Professor, [2]Assistant Professor-Senior Grade 2, [3,4]UG Students, [1,3,4]Meenakshi College of Engineering, [2]VITUniversity, Chennai Campus, Tamilnadu, India.	135

75	T2013	A Protection Method of Forest Trees Against Poaching using WSN Node.	[1]K.Charmathi, [2]D.Dharini, [3]M.Vidyalakshmi, [4]S.Mary Cynthia, [5]Kavetha B V	[1,2,3]UG Scholar,[4]Assistant Professor,[5]Associate Professor [1,2,3,4,5]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	136
76	T2014	Hybrid Approach for Image Reconstruction using Variable Segmentation & Analytical Method	M.AnanthaLakshmi[1], Dr.G.Yamuna[2], Dr.A.Sanjeevi Kumar[3]	[1]Research Scholar, [2]Professor,[3]Professor &HOD, [1,2]Annamalai University, Annamalainagar-600002, Tamilnadu,[3]Meenakshi Academy of Higher Education and Research, Mangadu, Tamilnadu, India.	137
77	T2015	SDR Blocks with Adaptive Modulation using Gnu Radio Cores in FL2440 Hardware.	[1]Dr.P.Bhuvaneswri	[1]Associate Professor, [1]Sri Venkateswara College of Engineering and Technology (Autonomous), Chittoor, Andhra Pradesh, India.	138
78	T2016	Human Activity Recognition with Open CV (Computer Vision) and Deep Learning.	[1]Mr.M.Mohan Raj	[1]Assistant Professor,[1]Sri Venkateswara College of Engineering and Technology (Autonomous), Chittoor, Andhra Pradesh, India.	139
79	T2017	Design of Interleaverbased UWB Transmitterfor Wireless System.	[1]Raj O, [2]Tonie Raalph C, [3]Parimala A, [4]Dr.B.T.Geetha, [5]R.Deepa	[1,2]UG Scholar,[3,5]Assistant Professor,[4]Associate Professor,[1,2,3,4,5]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	140

80	T2018	Wireless ECG Detector.	[1]Swetha K, [2]Nikitha T, [3]Harshitha S, [4]Joshua Jeyasekar D	[1,2,3]UG Scholar,[4]Assistant Professor,[1,2,3,4]Jeppiaar Institute of Technology, Sriperumbudur,Tamilnadu, India.	141
81	T2019	Guiding and Controlling Boat using Wireless System.	[1]Rahul Raj A S, [2]Guru Karthik S.R, [3]Sathya Narayanan P.V.L, [4]Benisha M, [5]Anisha M	[1,2,3]UG Scholar,[4,5]Assistant Professor,[1,2,3,4]JeppiaarInstitute of Technology, Sriperumbudur, Tamilnadu, India [5]Kalasalingam Academy of Research and Education, Virudhunagar, Tamilnadu, India.	142
82	T2020	Optical Millimeter Wave Generation using LiNbO3 MZM from Microwave Frequency.	[1]Dr.Anand Prem P.K	[1]Assistant Professor,[1]Sri Venkateswara College of Engineering and Technology, (Autonomous) Chittoor, Andhra Pradesh, India.	143
83	T2021	Indoor Navigation Using Visible Light Communication for Blind.	[1]Monisha R, [2]Sambavi S, [3]Harideepika B.P.L, [4]Jousha Jeyasekar D	[1,2,3]UG Scholar,[4]Assistant Professor,[1,2,3,4]JeppiaarInstitute of Technology, Sriperumbudur, Tamilnadu, India.	144
84	T2022	Effective Data Analysis and Crop Yield Prediction using Machine Learning Algorithm.	[1]Vinayaka Manjunatha Purushan, [2]Arun Raj S.R	[1]PG Scholar,[2]Assistant Professor,[1,2]UBDT College of Engineering, Davangere, Karnataka, India.	145

85	T2023	Automated Paralysis Patient Care System using IOT.	[1]Jim Elliot, [2]P.Thenmozhi, [3]R.Lijiya Rani, [4]G.Vagesvari	[1]Assistant Professor, [2,3,4]UG Scholars,[1,2,3,4]Kalasalingam Academy of Research and Education, Virudhunagar, Tamilnadu,India.	146
86	T2024	Designing A Tunable Sub Threshold Flip-Flop Through Adaptive Feedback Equalization.	[1]Rajender Udutha, [2]Dr.Srinath Kashyap	[1]Research Scholar,[2]Professor Vice-Principal,[1]Sri Satya Sai University of Technology and Medical Sciences, Bhopal, Madhya Pradesh, [2]KPRIT, Hyderabad, India.	147
87	T2025	Generation of Electricity from Pool Sludge using Bio-Waste Derived Activated Charcoal Electrodes Through Microbial Fuel Cell.	[1]S.Kirusheha Harini, [2]D.Mega, [3]S.Dharanipriya, [4]R.Mahendran, [5]J.Palanivel, [6]E.Varadarajan	[1,2,3]UG Scholars, [4]Associate Professor, [5]Professor, [6]Scientist G/DRDO [1,2,3,4,5]Anjalai Ammal Mahalingam Engineering College, Kovilvenni–614403, Tiruvarur,[6]Research & Innovation Centre, IIT Madras Research Park, Kanagam Road, Taramani, Chennai-600113, Tamilnadu, India.	148
88	T2026	Fault Recognition on Power Lines using Video Processing.	[1]Mrs.D.Satheeswari, [2]Dr.Leninisha Shanmugam [3]A.Amritha, [4]A.Bhuvaneshwari, [5]N.Kaviya	[1]Assistant Professor,[2]Assistant Professor Senior Grade 2,[3,4,5]UG Scholars,[1,3,4,5]Meenakshi College Engineering, Chennai, [2]SCSE,VIT University, Chennai, Tamilnadu, India.	149

89	T2027	Implementation of Smart Helmet with Theft Control and Alcohol Detection.	[1]R.Anandha Praba, [2]D.Satheeswari, [3]K.Subramani	[1,2]Assistant professor, [3]UG Student,[1,2,3]Meenakshi College Engineering, Chennai, Tamilnadu, India.	150
90	T2028	Cracks and Potholes Detection in Highways using Convolutional Neural Network.	[1]Ms.D.Satheeswari, [2]Ms.R.AnandhaPraba, [3]Ms.M.Saraswathi, [4]K.Ashwini	[1,2]Assistant Professor,[3]Associate Professor,[4]UG Student,[1,2,4]Meenakshi College of Engineering, [3]Panimalar Engineering College Chennai, Tamilnadu, India.	151
91	T2029	Information Retrieval using Embedded System.	[1]L.M.Merlin Livingston, [2]L.G.X.Agnel Livingston, [3]L.M.Jenila Livingston	[1]Professor,[2]Assistant Professor,[3]Associate Professor Senior, [1]Jeppiaar Institute of Technology, Sriperumbudur, [2]St.Xavier's Catholic College of Engineering, [3]VIT-Chennai, Tamilnadu, India.	152
92	T2030	Analytical Survey on Ultra-Wide Band Antenna for lower Band 5G Applications.	[1]S.Gowri Pooja, [2]R.Thandaiah Prabu, [3]M.Benisha	[1]UG Scholar,[2,3]Assistant Professor, [1,2,3]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	153
93	T2031	Wireless Communication Technologies.	[1]P.Kayalvizhi, [2]Jhansi Rani S, [3]Careline Claude R	[1]UG Scholar,[2]AssociateProfessor,[3]Assistant Professor [1,2,3]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	154

94	T2032	Mobile Robot for Rescue System.	[1]S.Karthikeyan, [2]Dr.L.M Merlin Livingston, [3]Deepika P	[1]UG Scholar, [2]Professor, [3]Assistant Professor, [1,2,3]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	155
95	T2033	Intelligent Green Hybrid Charging Infrastructure for Sustainable E-Mobility Growth in India.	[1]Ayan Banik	[1]UG Student, [1]Cooch Behar Government Engineering College,Cooch behar, West Bengal, India.	156
96	T2034	Localized Traffic Clearance System Enabling Green Path for Emergency Vehicles.	[1]Kavitha B, [2]Tamilarasi R, [3]Shankar S	[1,2]Lecturer,[3]Professsional Assistant III, [1,2]IRT Polytechnic College, Chennai-44, [3]Madras Institute of Technology, Chennai, Tamilnadu, India.	157
97	T2035	Design and Fabrication of Single Phase to Three Phase AC-AC Power Frequency Converter.	[1]Dinesh Kumar S, [2]Yuvaraj K, [3]Mohammed Irfaz C, [4]Praveen Kanna P, [5]Antony Charles A	[1,2,3,4] UG Scholar, [5]Assistant Professor,[1,2,3,4,5]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	158
98	T2036	Vitals Monitoring Wearable with Hand Wash Reminder And Social Distance Alarm.	[1]Praveen Kumar A.V, [2]Mugesh M	[1,2]UG Scholar, [1,2]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	159
99	T2037	Automatic Railway Track Cleaning System by using Arduino.	[1]Baskaran S, [2]Nandha Kumar P, [3]Jayaraj J, [4]Bharath B, [5]Naveen Kumar	[1]Assistant Professor, [2,3,4,5]UG Scholar, [1,2,3,4,5]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	160

100	T2038	A Sensor less Control of BLDC Motor Drive Using Third Harmonic Back EMF Method.	[1]Raja S, [2]Dr.M.Rathinakumar	[1]Research Scholar,[2]Professor, [1,2]SCSVMV, Kanchipuram, Tamilnadu, India.	161
101	T2039	Green Energy.	[1]V.Yamunaa, [2]G.Thirumoorthy	[1]Student, [2]Lecturer , [1,2]Nachimuthu Polytechnic College, Coimbatore, Tamilnadu, India.	162
102	T2040	Electrical System Design for an Educational Institute using ETAP Software.	[1]Surya Narayan Sahu, [2]Rama Prasanna Dalai	[1]Assistant Professor,[2]Professor, [1,2]Centurion University of Technology and Management, Bhubaneswar, Odisha, India.	163
103	T2041	Cluster Based Energy Efficient Trust Management Mechanism for Pill Bottle Mounted Wireless Sensors.	[1]Dr.C.Vimalraj, [2]Dr.P.Bhuvaneswari	[1,2]Associate Professor, [1,2]Sri Venkateswara College of Engineering and Technology, (Autonomous) Chittoor, Andhra Pradesh, India.	164
104	T2042	Artificial Intelligence Based Maximum Power Point Tracking for Green Building Applications.	[1]Sanam Kouser, Dr.G.Raam Dheep	[1]Research Scholar, [2]Professor, [1,2]Lovely Professional University,Jalandhar, Punjab, India.	165
105	T2043	Fast Acting Maximum Power Point Tracking Algorithm for Thermo-Electric Generator Based Power Generation Applications.	[1]Nukala Jaswanth, [2] Dr.G.Raam Dheep	[1]Research Scholar, [2]Professor,[1,2]Lovely Professional University,Jalandhar, Punjab, India.	166

106	T2044	Design of Cube sat using Arduino to Detect Atmospheric Temperature, Pressure And Humidity	[1]Karthika T, [2]Parkavi B, [3]Anushashree A, [4]Ramya S, [5]Gunasuthari R	[1,2,3,4,5]UG Scholar, [1,2,3,4,5]JeppiaarInstitute of Technology, Sriperumbudur, Tamilnadu, India.	167
107	T2045	Smart Analysis of Micro Grid using Renewable Energy Resources.	[1]Dr.Prajith Prabhakar, [2]Mrs.T.Muthukumari	[1]Assistant Professor, [2]Associate Professor, [1,2]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	168
108	T2046	Electrification of Railway System using DC Grid Based on Renewable Energy Sources.	[1]Nithya M, [2]Vinoth John Prakash S	[1,2]UG Scholars, [1,2]Vel Tech Engineering College, Chennai, Tamilnadu, India.	169
109	T2047	Automatic Booking System to Charge Electric Vehicle in Charging Station.	[1]Mrs.T Muthukumari, [2]Dr.P.Selvaraj	[1]Associate Professor, [2]Professor, [1]Jeppiaar Institute of Technology, Sriperumbudur, [2]SV college of Engineering and Technology, Tamilnadu, India.	170
110	T2048	Smart Home using IOT.	[1]Mr.Rajat Kumar Dwibedi, [2]Brijith Mathew Eapen, [3]Manu V Nair, [4]Ragesh P	[1]Assistant Professor (Gr-II), [2,3,4]Student,[1,2,3,4]Aarupadai Veedu Institute of Technology, Chennai, Tamilnadu, India.	171

111	T3001	The Need For Hybridization in Polymer Composites-A Case Study.	[1]V.Arumugaprabu, [2]P.Sivaranjana	[1]Associate Professor, [2]Assistant Professor, [1,2]Kalasalingam Academy of a Research and Education, Anand Nagar, Krishnankoil-626126, Tamilnadu, India.	**172**
112	T3002	Automation in Grinding Process to Reduce Manufacturing Cost.	[1]Gejendhiran.S, [2]Akeeshraj M, [3]Vibin A, [4]Udhay Sankar T V, [5]Ahin J	[1]Assistant Professor, [2,3,4,5]UG Student, [1,2,3,4,5]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	**173**
113	T3003	Experimental Investigation of Double Slope Solar Still using Three Way Reflectors.	[1]Mukilarasan Nedunchezhiyan, [2]Anuragh Kumar Jaiswal J, [3]Suriya Narayanan C P	[1]Associate Professor, [2,3]UG Scholar, [1,2,3]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	**174**
114	T3004	Anti-Juice Jacking Smart Solar Charger.	[1]D.B.Naga Muruga	[1]UG Student, [1]Sriram Engineering College, Chennai, Tamilnadu, India.	**175**
115	T3005	Climbing Wheelchair with To And Fro Action of Steering Mechanism	[1]Vengata Krishnan R, [2]Deepakraj V, [3]Karthick M, [4]Sundarapandiyan K, [5]Sharon Marishka I	[1,2,3,4]Student, [5]Associate Professor, [1,2,3,4]Jeppiaar Institute of Technology, Sriperumpudur, Tamilnadu, India	**176**
116	T3006	Design and Development of Low Cost Four Wheel Steering Mechanism.	[1]S.Vishal, [2]V.Vineeth, [3]D.VinothKumar, [4]Abraham J.S.Joepher, [5]C.Devanathan, [6]A.Ajin	[1,2,3]U.G Student, [4,5,6]Assistant Professor, [1,2,3,4,5,6]Rajalakshmi Engineering College, Thandalam, Chennai, Tamilnadu, India.	**177**

117	T3007	Finite Element Modelling and Analysis of Prosthetic Knee Joint.	[1]Sumit Masanaik, [2]S.J.Sanjay	[1]Student, [2]Assistant Professor, [1,2]Basaveshwar Engineering College, Bagalkot, Gadag, Karnataka, India.	**178**
118	T3008	Design, Analysis and Implementation of Robot Arm.	[1]Vijay Palled, [2]Dr.M.S.Hebbal	[1]Student, [2]PG Coordinator [1,2]Basaveshwar Engineering College, Bagalkot, Gadag, Karnataka, India.	**179**
119	T3009	Experimental Analysis of Prosthetic Knee Joint.	[1]Shivaprasad.P.H, [2]S.J.Sanjay	[1]Student, [2]Assistant Professor, [1,2]Basaveshwar Engineering College, Bagalkot, Gadag, Karnataka, India.	**180**
120	T3010	Internal Rotatory Inspection System (IRIS) of Heat Exchanger.	[1]Mohamed Fayas Saffiudeen, [2]Abdullah Syed, [3]Fasil T.Mohammed	[1,2,3]Lecturer, [1,2,3]Jubail Technical Institute, Royal Commission Jubail Jubail, Kingdom of Saudi Arabia.	**181**
121	T3011	Performance, Combustion and Emission Characteristics of Diesel Engine Fuelled with Papaya Seed Bio-Diesel.	[1]Aravind Venkatesh K, [2]Raj Kumar M, [3]Dr.Rajesh Kumar B, [4]Arvin Sam B.R, [5]Diwakar N	[1,2,4,5] UG Students, [3]Professor, [1,2,3,4,5]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	**182**

122	T4001	Solution And Stability of n- Dimensional Quadratic Functional Equation in Banach Space.	[1]S.Suresh, Department of Mathematics	[1]Assistant Professor, [1]Jeppiaar Institute of Technology Sriperumbudur, Tamilnadu, India.	183
123	T4002	Hydrothermal Synthesis and Characterization of Molybdenum Disulphide at Different Reaction Time.	[1]Sonamrani,[2]Meenu Sharma, [3]I.Sameera, [4]Ravi Bhatia, Department of Physics	[1,2]Research Scholar, [3]Dst Inspire Research Fellow [4]Assistant Professor [1,2,3,4]Guru Jambheshwar University of Science & Technology, Hisar-125001, Haryana, India	184
124	T4003	A Study on Various Approach in Graph Theory.	[1]J.Arokiamary, Department of Mathematics	[1]Assistant Professor, [1]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	185
125	T4004	Preparation and Performance of Cellulose Coated Hollow Fiber Membrane	[1]P.Maheswari,[2]D.Shanthana Lakshmi, [1]Department of Chemistry, [2]Biotechnology and Ecology Division	[1]SRM Valliammai Engineering College, SRM Nagar, Kattankulathur, Chennai- 60320, [2]Reverse Osmosis Division Council of Scientific and Industrial Research (CSIR), Central Salt and Marine Chemicals Research Institute (CSIR-CSMCRI), G. B. Marg.	186
126	T4005	Carbazole Pendent Cyanate Ester Co-Cured Skeletal Modified Maleimide End Capped Benzoxazine Hybrid Blend.	[1]S.G.Gunasekaran, [2]V.Arivalagan,[3]M.Meera, Department of Chemistry	[1]Assistant Professor[1,2,3]SRM Valliammai Engineering College (Autonomous), SRM Nagar, Kattankulathur-603203, Tamilnadu, India.	187

127	T4006	Multi-Walled Carbon Nanotube Reinforced Cardonal Pendent Thiophenyl End Capped Imine Skeletal Polybenzoxazine (Mwcnt/Pbz) Nanocomposites From Cashewnut Shell Liquid.	[1]M. Meera, [2] V.Arivalagan, [3]S.G.Gunasekaran, Department of Chemistry	[1]Assistant Professor, [1,2,3]SRM Valliammai Engineering College (Autonomous), SRM Nagar, Kattankulathur-603203, Tamilnadu, India.	188
128	T4007	The Effect of Binary Solvent Interavtion on $Co^{III}(tn)_2Cl(L)^{2+}$ With Visible-Light Irradiated Titania Photocatalyst.	[1]L.Devaraj Stephen, [2]S.G.Gunasekaran, Department of Chemistry	[1]Assistant Professor,[1,2]SRM Valliammai Engineering College (Autonomous), SRM Nagar, Kattankulathur-603203, Tamilnadu, India, India.	189
129	T4008	Anion-Responsive Urea Tacked Polymer Gels for the Detection of Fluoride Ion.	[1]J. Krishnamurthi, Department of Chemistry	[1]Assistant Professor, [1]SRM Valliammai Engineering College (Autonomous), Kanchipuram 603203, Tamilnadu, India.	190
130	T4009	Bio Farming by Green Chemistry Techniques for Human and Environmental Protection.	[1]Sananda S, Department of Chemistry	[1]UG Scholar [1]Sdnb Vaishnav College for Women, Chengalpet, Tamilnadu, India.	191
131	T4010	A Study on The Cost Flow Problem.	[1]Shenbaga Ezhil S, Department of Mathematics	[1]Associate Professor, [1]Jeppiaar Institute of Technology, Sriperumpudur, Tamilnadu, India.	192

132	T4011	Assessment of Surface Water Quality by using Multivariate Statistical Techniques of Kolavai Lake of Kanchipuram District, India.	[1]H.Leelavathi,[2]M.R.Kuppusamy Department of Chemistry	[1]Research Scholar, [1,2]Rajeswari Vedachalam Government Arts College, Chengalpattu – 603101, Tamilnadu, India.	193
133	T4012	Effect of L-Valine on Potassium Hydrogen Oxalate Single Crystal.	[1]S.Devi, [2]DeepaJananakumar, Department of Physics	[1]Research Scholar/Associate Professor, [1,2]Velalar College of Engineering and Technology, Erode-638012, Tamilnadu, India.	194
134	T4013	Application of Hydra Hexagons inCommunication Networks.	[1]Lalitha Pattabiraman, Department of Mathematics	[1]Assistant Professor,[1]SRM Institute of Science and Technology Chennai, Tamilnadu, India.	195
135	T4014	Comparison of UV Spectrophotometry and High Liquid Chromatography Methods for the Determination of Miglitol in Tablets.	[1]Vasanthi V, [2]Vijayalekshmi S, Department of Physics	[1]Assistant Professor,[2]Associate Professor,[1]Vel Tech Multi Tech Dr Rangarajan Dr Sagunthala Engineering College, [2]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	196

136	**T4015**	E-Super Edge Magic Labeling on Some Classes of Graphs.	M.Sindhu[1], S.Chandra Kumar[2], Department of Mathematics	[1]Research Scholar,[2]Associate Professor, [1,2]Scott Christian College (Autonomous), Affiliated to Manonmaniam Sundarnar University, Abishekapatti, Tirunelveli-627012, Tamil Nadu, India.	**197**
137	**T4016**	Charge Transport Behavior of H_2SO_4 Treatedpoly(3,4-Ethylenedioxythiophene): Poly(Styrene Sulphonste) Thick sample.	Meenu Sharma[1],Sonam Rani[2], I.Sameera[3],Ravi Bhatia[4], Department of Physics	[1,2]Research Scholar, [3]Dst Inspire Research Fellow [4]Assistant Professor [1,2,3,4]Guru Jambheshwar University of Science & Technology, Hisar-125001, Haryana, India.	**198**
138	**T4017**	Synthesis and Optimization of 3D Antenna Arrays.	[1]Jyothi Budida,[2]Dr.S.Kamala,[1]Department H&BS [2]Department of physics	[1]Assistant Professor,[2]Academic consultant,[1]Aditya College of Engineering, Surampalem, E.G.Dt, Andhra Pradesh, [2]Sri Venkateswara University, Tirupati, Andhra Pradesh, India.	**199**
139	**T4018**	Zn Doped CdS Nanoparticles Synthesised by Microwave Assisted Deposition using Anisomeles Malabarica Leaf Extract.	N.Subathra[1], P.Duraisamy[2], PG & Research Department of Physics	[1]Ph.D research Scholar,[2]Assistant Professor, [1,2]Thiruvalluvar Government Arts College, Rasipuram-637401, Namakkal, Tamilnadu, India.	**200**

140	T4019	Advancement of an Energy Efficient and Eco-Friendly Cathodic Electrochemical Treatment Process for The Deposition of Zinc-Zinc Phosphate Composite Coatings	C.Kavitha[1], T.S.N.Sankara Narayanan[2], K.Ravichandran[3] [1]Department of Chemistry, [2]Department of Mechanical Engineering,[3]Department of Analytical Chemistry	[1]Professor, [2]Research Professor, [3]Director, [1]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India, [2]Multiscale Hybrid Manufacturing Laboratory, Ulsan National Institute of Technology (UNIST) Ulsan, South Korea, [3]University of Madras, Maraimalai (Guindy) Campus, Chennai-600 025, Tamilnadu, India.	201
141	T4020	CdS Nanoparticles: Green synthesis and their applications.	[1]Uthayanila S, Department of Chemistry	[1]Pachaiyappa's College for Women, Kanchipuram, Tamilnadu, India.	202
142	T4021	Analysis of Lifetime of Glycerol Capped Copper Doped Cadmium Oxide Nanocrystallites for Sensing Application	J Christina Rhoda[1], M Giruba[2], S Chellammal[3], K.Ravichandran[4], Department of Physics	[1,2]Research Scholar, [3]Professor [4]Director, [1,2,3]Advanced Science Research and Development Centre, [1,2,3]Dr. M.G.R. Educational and Research Institute, Chennai, [4]University of Madras (Guindy Campus), Chennai, Tamilnadu, India.	203
143	T4022	Catalytic Synthesis, Molecular Docking with COX 1&2 Enzyme, ADMET Screening and in Vitro Anti-Inflammatory Activity of Hydrazone Derivatives of Piperidin-4-One Derivatives.	L. ReetaCarolin[1], S Stanly Arul Samuel[2], [1]Department of chemistry, [2]Department of applied chemistry	[1]Research Scholar/Assistant Professor, [1]Loyola-ICAM College of Engineering and Technology, Chennai, [2]Sri Venkateswara College of Engineering, Pennalur, Sriperumbudur, Tamilnadu, India.	204

144	T4023	A Comparative Study on Solution of Duffing Equation using the Modified Simple Equation and Jacobi Elliptic Function Method.	[1]C.Senthilkumar, Department of Mathematics	[1]Assistant Professor, [1]Jeppiaar Institute of Technology, Sriperumbudur, Tamilnadu, India.	205
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146	T4025	An Overview on The Ecotoxicology of The Kortalaiyar River, Tamilnadu, India.	[1]N.Bhuvana,[2]P.Prakash, Department of Chemistry	[1]Associate Professor, [1]Jeppiaar Institute of Technology, Sriperumbudur, [2]Thiagarajar College, Madurai, Tamilnadu, India.	207
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149	T4028	Synthesis, Characterization and Their Applications of ZnO Nanoplates.	[1]N. Jayaprakash, [2]R.Suresh, [3]S.Rajalakshmi, [4]S.Raja, [1,2,3]Department of Chemistry [4]Department of Electrical and Electronics Engineering	[1]Assistant Professor, [1]SRM Valliammai Engineering College (Autonomous), Kattankulathur-603203, Chennai, [2]Easwari Engineering College (Autonomous), Ramapuram, Chennai-600089, [3]DST Inspire Faculty, AU-KBC Research Centre, MIT Campus, Chrompet, Chennai, [4]Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya University, Kanchipuram-631561, Tamilnadu, India.	210
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Track – I (CSE & IT)

ICRISET/T1001

IMAGE STEGANOGRAPHY

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ABSTRACT:

Steganography is the art of hiding information within other information in such a way that it is hard or even impossible to identify the existence of any hidden information. There are many different carriers for steganography. Of which, most popular ones are digital images. Due to recent developments in steganalysis, providing security to personal contents, messages, or digital images using steganography has become difficult. By using steganalysis, one can easily reveal existence of hidden information in carrier files. This project introduces a novel steganographic approach for covert communications between two private parties. The approach introduced in this project makes use of both steganographic as well as cryptographic techniques. The process involves converting a secret image into a text document, then encrypting the generated text into a ciphertext using a key (password) based encryption algorithm, and finally embedding the ciphertext on to a cover image. This embedding process is carried out using a threshold based scheme that inserts secret message bits into the cover image only in selected pixels. The security to maintain secrecy of message is achieved by making it infeasible for a third person to detect and retrieve the hidden message.

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Track – I (CSE & IT)

ICRISET/T1002

AN ESSENTIAL SURVEY TO COMBAT FUTURE PANDEMICS USING COMPUTER COMMUNICATION TECHNOLOGIES

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ABSTRACT:

This analysis Topic aims to produce a platform for tutorial researchers and practitioners to gift their novel concepts on however existing and rising wireless communications and sensing technologies will be either custom-made or increased to quickly tackle current pandemic scenario because of COVID-19, or gift new promising developments that change telecommunication infrastructure and sensing capabilities to raised assist in combating future pandemics.

In this troublesome time, telecommunication networks are known as a crucial service. Mobile and glued broadband networks have competed a key role to change speedy transition of labor from physical offices to digital platforms. The sensing capabilities of this good phones area unit being utilized to change mobile crowd-sensing for extracting, sharing and analyzing knowledge throughout the continued pandemic. New applications starting from self-reporting of symptoms to coordinating and following essential personnel or volunteers or patients area unit being developed and chop-chop deployed. Sensing capabilities are being exploited for contact tracing and early isolation of infected individuals or areas. Big selection of social and academic applications is being launched to alter mental and physical health connected problems beneath the imprisonment.

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Track – I (CSE & IT)

ICRISET/T1003

DRY AND WET AGE-RELATED MACULAR DEGENERATION CLASSIFICATION USING OCT IMAGES AND DEEP LEARNING

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ABSTRACT:

The Project proposes the Retinal image analysis through efficient detection of vessels and exudates for RVD analysis. It plays important roles in detection of AMD in early stages, such as diabetes, which can be performed by comparison of the states of retinal blood vessels. Intrinsic characteristics of retinal images make the blood vessel detection process difficult. Here, we proposed a new algorithm to detect the retinal blood vessels effectively. The green channel will be selected for image analysis to extract vessels accurately. The db wavelet transform is used to enhance the image contrast for effective vessels detection. Afterward, morphological operators by reconstruction eliminate the ridges not belonging to the vessel tree while trying to preserve the thin vessels unchanged. In order to increase the efficiency of the morphological operators by reconstruction, they were applied using multistructure elements. A simple thresholding method along opening and closing indicates the remained ridges belonging to vessels. Experimental result proves that the blood vessels and exudates can be effectively detected by applying this method on the retinal images.

Keywords: Retina, Age related Macular degeneration, duabachies, retinal vasculature disorder, blood vessels

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Track – I (CSE & IT)

ICRISET/T1004

ARRHYTHMIA CLASSIFICATION OF ECG BEAT USING IMPROVED MULTI-SCALE CONVOLUTIONAL NEURAL NETWORK

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ABSTRACT:

Cardiovascular diseases kill more people than other diseases. Arrhythmia is a common term used for cardiac rhythm deviating from normal sinus rhythm. Many heart diseases are detected through electrocardiograms (ECG) analysis. Manual analysis of ECG is time consuming and error prone. Thus, an automated system for detecting arrhythmia in ECG signals gains importance. Features are extracted from time series ECG data with Discrete Cosine Transform (DCT) computing the distance between RR waves. The feature is the beat's extracted RR interval. Two sets of experiments were conducted. In the first experiment, 153 images were used and in the second with a dataset of 13300 beats from 20 recordings were used for evaluating the performance of classifiers. The dataset consists of 68 instances of left bunch bundle block, 30 instances of right bunch bundle block and 56 normal instances. In this paper, a method of energy extraction using Discrete Cosine Transform was used and RR interval was extracted and used as feature. Using 10 fold cross validation, Frequency domain extracted features are classified using Classification and Regression Tree (CART), Radial Basis Function (RBF), MLP NN and MCNN. The obtained results show that the proposed method is quite efficient where the calculated accuracy score is 90.9% and the comparisons with the state-of-the-art method show that the proposed method outperforms other methods.

Keywords: Electrocardiograms (ECG), Cardiac Arrhythmia, MIT-BIH database, RR interval, Discrete Cosine Transform (DCT), RR Waves

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Track – I (CSE & IT)

IOT BASED HEALTHCARE SYSTEM

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ABSTRACT:

The IOT based Health Care system For the Elderly is cheapest healthcare device based on the IOT Platform for the patients and doctors. It provides a solution for measurement of body parameters like ECG, Temperature, Moisture, and heartbeat. It also detects the body condition and location of the patients. The mobile application for the patients and doctors contain a very simple GUI interface for reading all the parameters in the mobile or at anywhere in the world by using internet connectivity. In this project we are using various sensors and modules for performing a different type of functions and the "Thing speak". Cloud service is used for storing all the data in the cloud; it provides security and facility of accessing all the parameters at any time which is very useful for the doctors at the time of treatment. This system also generates an alert when it required that means at the time of any critical conditions and notifications about the medicines, location change, conditions etc...

ICRISET/T1006

DEEP LEARNING BASED AI SYSTEM WITH FACE DETECTION AND RECOGNITION SYSTEM FOR ONLINE ATTENDANCE AND EMAIL ALERT SYSTEM

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ABSTRACT:

The technology aims in imparting a tremendous knowledge oriented technical innovations these days. Deep Learning is one among the interesting domain that enables the machine to train itself by providing some datasets as input and provides an appropriate output during testing by applying different learning algorithms. Nowadays Attendance is considered as an important factor for both the student as well as the teacher of an educational organization. With the advancement of the deep learning technology the machine automatically detects the attendance performance of the students and maintains a record of those collected data.

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Track – I (CSE & IT)

ICRISET/T1007

SHORTEST PATH ROUTING USING GENETIC ALGORITHM

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ABSTRACT:

Shortest-path problems on graphs have been studied in depth in Artificial Intelligence and Computer Science. Search on dynamic graphs, i.e. graphs that can change their layout while searching, receives plenty of attention today –mostly in the planning domain. Approaches often assume global knowledge on the dynamic graph, i.e. that topology and dynamic operations are known to the algorithm. There exist use-cases however, where this assumption cannot be made. In vehicular ad-hoc networks, for example, a vehicle is only able to recognize

The topology of the graph within wireless network transmission range. In this paper, we propose a combined uniform and heuristic search algorithm, which maintains shortest paths in highly dynamic graphs under the premise that graph operations are not globally known.

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Track – I (CSE & IT)

ICRISET/T1008

AN IOT BASED SMART PARKING SYSTEM USING CLOUD DATABASE

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ABSTRACT:

The aim of this paper is to resolve parking issue. The user usually wastes his time and efforts in search of the availability of the free space in a specified parking area. Using GSM and GPS, Vehicular parking is proposed. IR sensors are used in identifying the empty parking slots. Based on the availability of the slot user registration is allowed and based on the slot allocated OTP will be issued to the corresponding user. Thus, the waiting time for the user in search of parking space is minimized. RIFD technology is being used to avoid car theft.

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Track – I (CSE & IT)

IOT BASED STREET LIGHT SURVEILLANCE SAFETY SYSTEM

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ABSTRACT:

With enhancement in internet in terms of bandwidth and speed, Internet of Things has become more efficient technology and knocks the doors of researchers with numerous opportunities and inventions. In recent days safety is one of the major factors that is lacking needs our attention. In recent days, we might have heard about many cases of insecurity for people in these days including theft, kidnapping.etc, have become a threat and provides insecurity to several people. This paper proposes an IOT Based Street Light Surveillance Safety System for these problems. Sound is basically acoustic waves that have frequencies ranging from 1hz up to many tens of thousands of hertz with the upper limit of human being around 20khz. Street lights are robotic framework which automates the security against the crime in public place. Once the sensor senses the sound frequency of danger it activates an alarm that is loud enough to awake the nearby for help. If by chance the alarm becomes ineffective the sensor fixed send danger signal to the police for help and it is capable of tacking the vehicle movement and send signals to the nearby street light such that the person in need of help gets tracked and saved.

Keywords: street light; signal control; Sound sensor; wireless communication; Aurdino technology; frequency; signal transmission

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Track – I (CSE & IT)

FAKE NEWS DETECTION USING MACHINE LEARNING

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ABSTRACT:

Accounting to the digitalization the menace of fake news has always been trouble at a colossal scale. To reduce the impact, it requires a classification. Using sklearn we create a Tfidf vectorizer or count vectorizer on the dataset. Then the classification can be achieved by using machine learning algorithms like passive-aggressive classifiers by fitting the model into it. Passive-aggressive classifiers deal with large amounts of data within less amount of time. It will not store the data and an online processing algorithm by creating a hyper plane and classifying the data available. This depends on the dataset availability and train & test data. The data classification will be through accuracy and many other parameters like precision, recall and calculating the confusion matrix. This model can produce the accuracy of up to 98%.

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Track – I (CSE & IT)

ICRISET/T1011

ANDROID APPLICATION BASED ELECTRONIC STUDY MATERIALS FOR ENGINEERING STUDENTS

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ABSTRACT:

The era of mobile technology opens the windows to the android app. As the mobile phones are emerging, it becomes a part of everyday life. Mobile Phone technology promotes the conventional websites into mobile apps. This paper introduces the android application software specially designed for engineering students. This application provides Electronic study materials for Computer Science and Engineering, Information Technology, Mechanical Engineering, Electronics and Communication Engineering and Electrical Engineering subjects. Through this application Students can learn in online, as well as they download the content in their device for offline preparation. Students can also share the content to other people. Any student can upload the content for the topic or chapter. The new uploaded content will be evaluated by the team and became available to other students. Students can share their knowledge and build the contents. This application also has written content for some subjects. This open source application is user friendly and eases the Students to learn anywhere in and outside of the classroom effectively.

Keywords: Android application, Electronic study materials, Engineering, Mobile Application.

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Track – I (CSE & IT)

DYNAMIC VM SCALING: PROVISIONING AND PRICING THROUGH AN ONLINE AUCTION

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ABSTRACT:

In this present structure, for the most part cloud providers like Amazon, drop box, I-cloud are one of the appropriated stockpiling contraptions. The customers can need to buy the cloud infers they have to buy through on the web. On account of time limitation, the offer will over in a limited ability to focus. Furthermore, they have been gaining back the first venture issue among cloud customers and cloud providers, it will satisfy both or not. To vanquish this issue, here cloud providers introduced the contribution structure. This framework for the most part used in online deal the person who offering their total will be secretively kept up by the chairman What's more, result will be appropriated by cloud provider's data figuratively speaking. This site may need to buy cloud providers in extraordinary manner. It will satisfy both the customers and cloud providers. This structure may remember for the online closeout.

Keywords: Cloud Computing, VM, Cloud service Provider, Cloud Scheduler

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Track – I (CSE & IT)

ICRISET/T1013

SECURE AUTHENTICATION FOR DATA SHARING IN CLOUD TO ENABLE HEALTHDATA ENVIRONMENT

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ABSTRACT:

Cloud is a big challenge with the rapid growth of data source with provided security. Different challenges have ascended in big data security. Few issues are infrastructure security, data privacy, data management also data integrity. But recently, Big data processing in analytics and storage is mainly secured using cryptography algorithms, and it is not up to the point Big data protection over Cloud. So, In this paper, I like to present a solution for addressing the main issues in Big data security over Cloud using the Authentication and Data Sharing in Cloud (SADS-Cloud). The main processes I have used is Big Data Outsourcing, Big Data Sharing and Big Data Management. SHA-3 hashing algorithm is used with Map Reduce model which is used to split the input file into fixed-size of blocks of data and SALSA20 encryption algorithm is applied over each block.

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Track – I (CSE & IT)

ICRISET/T1014

STUDAT - A WEB BASED INTERACTIVE AND MONITORING TOOL

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ABSTRACT:

Student database Management System (SDMS) provides a simple interface for maintenance of student information. It can be used by educational institutes or colleges to maintain the records of students easily. The creation and management of accurate, up-to-date information regarding a students' academic career is critically important in the university as well as colleges. Student information system deals with all kind of student details, academic related reports, college details, course details, curriculum, batch details, placement details and other resource related details too. It tracks all the details of a student from the day one to the end of the course which can be used for all reporting purpose, tracking of attendance, progress in the course, completed semesters, years, coming semester year curriculum details, exam details, project or any other assignment details, final exam result and all these will be available through a secure, online interface embedded in the college's website. It will also have faculty details, batch execution details, students' details in all aspects, the various academic notifications to the staff and students updated by the college administration. It also facilitate us explore all the activities happening in the college, Different reports and Queries can be generated based on vast options related to students, batch, course, faculty, exams, semesters, certification and even for the entire college. There are many departments in a college thus but introducing a student web portal will centralize the administration and the entire system will work as one single entity. The paper work would be reduced and number of workers in each department staff also reduces as one single operator can run this web application.

Keywords: database, design, MySql, deployment, software modeling

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Track – I (CSE & IT)

IMPROVING FAKE NEWS DETECTION TECHNIQUE USING MODIFIED NAIVE BAYES CLASSIFIER

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ABSTRACT:

It tells us about how to detect the accuracy of the fake news using Naïve Bayes classification. Here the data is divided into test data set and train dataset and the train dataset is further divided in to groups of similar information. Test data is later matched with these groups and accuracy is found using Naïve Bayes classifier. It helps in knowing whether given news is fake or real. It provides maximum accuracy and helps to determine the fake news.

Keywords: Machine learning, fake news Classification, Probability

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Track – I (CSE & IT)

ICRISET/T1016

TWO-AGGREGATOR TOPOLOGY OPTIMIZATION USING MULTIPLE PATHS IN DATA CENTER NETWORKS

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ABSTRACT:

In this paper we focus on the problem of data aggregation using two aggregators in a
Data center network, where the source racks are allowed to split the ir data and send to the aggregators using multiple paths. We show that the problem of finding a topology that minimizes Aggregation time is NP- hard fork=2, 3, 4, where k is the maximum degree of each To R switch (number of up links in a top-of-rack switch) in the data center.
We also show that the problem
Becomes solvable in polynomial l time fork = 5 and 6 and conjecture the same fork > 6.

Experimental results show that, fork = 6,our topology optimization algorithm reduces the
Aggregation time by as much as 83.32% and reduces total network traffic by as much as 99.5%
Relative to the to rush eu ristic, proposed in[1], which readily proves the significant improvement
In performance achieved by the proposed algorithm.

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Track – I (CSE & IT)

ICRISET/T1017

TEXTILE TECHNOLOGY USING ARTIFICIAL NEURAL NETWORKS

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ABSTRACT:

Textile industry is used for developing and creating several varieties of fabric, textiles and garments from yarn. A neural network is a network is a network or circuit of neurons, or in a modern sense, an artificial neural network, composed of artificial neurons or nodes. In modern textile, fabric defect detection can be quality control in the textile manufacturing industry. In the fabric inspecting up-to-date survey of different defect detection method. Based on the advances in the image processing and pattern recognition. It is to enable an online quality control of the weaving process. Artificial Neural Networks has proved its usefulness for resolving many problems in textiles such as prediction of yarn properties, analysis of fabric defects, process optimization.etc. The power of neural networks lies in their ability to represent complex relationships and learn them directly from the data being modeled.

The ability to predict these properties accurately has become a challenge due to highly non-linear and interactive behavior of textile materials. The predictions of properties or performance of a process in advance is required to minimize the setup cost and time.

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Track – I (CSE & IT)

SHYAWAY

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ABSTRACT:

The average sanitary pad is made from 90 per cent plastic- that is the equivalent of four single-use carrier bags. And tampons are just bad –because their applications are commonly coated in plastic, they are non-recyclable. Which leads to cervical cancer? Some men feel embarrassed and are reluctant to go out for this task, so girls use plastic pads what they get nearby, for their adjacency. So, make this task easy, we are implementing this app. Where girls easily buy organic pads. If they use this app, they can get their pad regularly every month for their home itself. So, there is need to go to shop every month to get pads. If they access this app one time itself, they will get notification for every month to buy organic pads. They can also customize their pads size, organic flavors and they can also customize how many pads they need in a package, if they want 6 pads in a package, and we give three choices heavy, medium, light they can customize how many heavy, light, medium pads they want in their package. So, it is an easy way to buy a customized organic pad.

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Track – I (CSE & IT)

PRIVACY PRESERVING DYNAMIC INTERMEDIATE DATASETS IN CLOUD

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ABSTRACT:

Cloud computing is one of the most pre-dominant paradigm for computing and storing purposes. Design an encryption of privacy preserving and scheduling of intermediate dataset in cloud. Implementation of encryption is done as follows:

Identification of intermediate dataset that needs to be encrypted. Based on frequent pattern mining the least frequent intermediate dataset are encrypted. Encryption on the basis of reference attribute between the data tables is identified. Perform column level encryption to the sensitive information. Automatic scheduling process may enable the system synchronized as it is with current situation. Finding all possible data and encrypting based on their relationships will be secure, predicting the data based on inference analysis would not be possible. So that the data will be secure when compared to the existing system.

Keywords: Automatic scheduling, Intermediate dataset, Privacy preserving

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Track – I (CSE & IT)

SURVEY ON BLOCKCHAIN-A NEW ERA

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ABSTRACT:

In this era of Intelligence, more devices become self aware by connecting themselves to internet and moved one step ahead. This will result in a huge amount of data which is needed to be maintained with more care where security comes into big picture. As the amount of data increases, the platform which transfers data gets more vulnerable. In this mean time, the applications will get expanded and step into the circle of cyber attacks especially in online transaction .To overcome these serious issues, block chain technology can be preferably used and secure the data from being tampered. This paper, gives an overview of block chain technology and its influence in different sectors like health care, business, military etc.

ICRISET/T1021

ANALYSIS AND PREDICTION OF CHURN CUSTOMERS FOR TELECOMMUNICATION INDUSTRY USING R

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ABSTRACT:

New Telecom Companies providing various schemes and services to attract various customers
To get switch from competitor's service to their service because may be customers are not happy with old schemes and services.

Customer churn is a major problem and one of the most important concerns for large companies.
The main contribution of our work is to develop a churn prediction model which assists telecom operators to predict customers who are most likely subject to churn
Churn prediction is one of the most popular Big Data use cases in business. It consists of detecting customers who are likely to cancel a subscription to a service.

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Track – I (CSE & IT)

ICRISET/T1022

DDOS ATTACKS DEDECTION USING MACHINE LEARNING TECHNIQUE

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ABSTRACT:

The current digital environment is using Internet Service Provider (ISP) everywhere. Usage of internet has been increasing; however, threats are also increasing. Cyber threat continues to grow even with the development of new protection technologies. Developing mechanisms to detect this threat is a current challenge in network security. The DOS attack can occur at different layers of OSI model. The aim of this paper is to detect DOS attack effectively using Machine learning and Neural Network algorithms. The detection is specifically focused on application layer DOS attack detection. The most dangerous malicious traffic on the Internet is the DDOS volumetric attack, which is responsible for more than 65% of all such attacks. In a volumetric DDOS attack, several attackers coordinate the sending of a high rate of useless data in an attempt to overload the victim's computing resources or the near network links. On the one hand, the high success rates for this type of attack occur because the main Internet routers typically use the FIFO (First-In-First-Out) and DROP-TAIL queuing disciplines, which do not differentiate between types of traffic, imposing equal loss rates for attacks and legitimate traffic. The results show an online detection rate (DR) of attacks above 96%, with high precision (PREC) and low false alarm rate (FAR) using a sampling rate (SR) of 20% of network traffic.

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Track – I (CSE & IT)

ICRISET/T1023

SELF DRIVING CARS

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ABSTRACT:

In this modern world, the computational technology has begun to rise in vehicles the innovation of new vehicles are automated to give human driver relaxed driving to make a vehicle as automated various aspects have to be considered in the automobile industry. In 2010 Google, the world's biggest network started working on a self-driving car project. There is 2 major applications in the automation of self-driving car. The very first thing is the destination. The perfect route checking technology to move on the path. The second thing is to control power on breaks in the traffic. There are lots of sensors are connected together and computed in a single way to automate the car.

The self - driving car is also known as the autonomous or robotic vehicle that brings all the computational technology into a small thing to reach the destination safely.

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Track – I (CSE & IT)

ICRISET/T1024

BRAIN COMPUTER INTERFACE FOR SLEEP APNEA DETECTION

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ABSTRACT:

Brain computer Interface (BCI) is new communication channel between brain and digital computer. Sleep Apnea is sleep disorder which cause stop in breathing for short duration of time during sleep. The repetitive sleep apnea events results in depression, diabetes, and high blood pressure. Sleep stage classification refers to identifying the various stages of sleep and is a critical step in an effort to assist physicians in the diagnosis and treatment of related sleep disorders using EEG. Electro Encephalo Gram (EEG) plays a vital role in detecting the sleep apnea by sensing and recording the brain's activities.

Our goal was to build a brain computer interface using an Raspberry Pi and the least invasive way of measuring brain waves using Electro Encephalo Graphy (EEG) to record microvolt range potential differences across locations on the user's scalp. The signal generated by brain was received by the brain sensor and it will divide into packets and the packet data transmitted to wireless medium (blue tooth).The wave measuring unit will receive the brain wave raw data and it will convert into signal. Then the instructions will be sending to the home section to operate the modules .Based on the data received by the Raspberry Pi it performs certain predefined actions based on the level of concentration.

An adaptive decomposition is introduced for EEG signals, Explores the utility of HC based features for the detection of apnea events and the proposed method obtained better sleep apnea detection results as compared to the state-of-the-art methods. Hence, the introduced method provided a reliable automatic solution for the detection of apnea events, which can be beneficial in clinical settings for the diagnosis of sleep apnea disorder.

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Track – I (CSE & IT)

ICRISET/T1025

DYNAMIC LOAD BALANCING STRATEGY IN CLOUD ENVIRONMENT

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ABSTRACT:

Web traffic is defined as the number of visitors visiting a particular website at a given time. In a railway ticket reservation environment, web traffic drastically increases at times of high demand. We witness a number of server crashes during festive seasons, when a large population of people attempt to access the website. The existing architecture utilizes a static load balancing strategy to manage the traffic load. However, this strategy examines the load on each server in a sequential manner, thus making it more time consuming and less efficient.

In order to tend to this problem, we introduce a dynamic load balancing strategy which balances the incoming traffic by redirecting the request to that server which currently has marginal demands. This can be achieved by initially computing the number of active connections in each server, using which each server can be categorized as idle, available or busy. A least connections algorithm is used to determine the status of the server.

Using the live status update of each server, server traffic is managed by using an optimal load balancing strategy. Dynamic algorithms are more flexible and take into account different types of attributes in the system both prior to and during run-time. These algorithms can adapt to changes and can provide better results in heterogeneous and dynamic environments like that of cloud. When an additional request is directed to an already overloaded server, it is diverted to the nearest available server in order to balance the load. Best partition search is used to stabilize this incoming traffic, thus improving the efficiency in a cloud environment.

EXPERIMENTAL STUDIES ON CLASSIFICATION OF BIG IMAGES USING BAG OF VISUAL WORD AIMING PERFORMANCE

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ABSTRACT:

Nowadays digital images are produced abundantly by internet, sensors surveillance camera etc. So it is needed to have a good system to categorize &retrieve the images from big repositories. The content-based image retrieval (CBIR) system is more helpful for classifying those images. Earlier studies suggest that number of features is one of the parameter that may affect the performance of accurate classification of images. Present work involves bag of visual words with SURF feature extraction method. The Open dataset Wang has been chosen for the research work. After getting the datasets, initially a framework has been designed which includes first stage of image processing i.e. Preprocessing. Then, Features have been extracted using SURF (Speeded-Up Robust Features) method where Hessian Matrix, Wavelet Responses used to pull-up the feature set for each image in the dataset. The proposed bag of code book with Speedup robust features classifies the images accurately.

Keywords: BOVW, K-means clustering, SURF feature Extraction

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Track – I (CSE & IT)

ICRISET/T1027

VOICE BASED INTELLIGENT VIRTUAL ASSISTANCE FOR WINDOWS

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ABSTRACT:

This is one of the interesting Artificial Intelligence project idea. Voice-based personal assistants are handy tools for simplifying everyday tasks. For instance, you can use virtual voice assistants to search for items/services on the Web, to shop for products for you, to write notes and set reminders, and so much more.

This voice-based virtual assistant is specially designed for Windows. A Windows user can use this assistant to open any application (Notepad, File Explorer, Google Chrome, etc.) they want by using voice command – "open." You can also write important messages using the "write" voice command. Similarly, the voice command for searching the Web is "search." The NLP trained assistant is trained to understand natural human language, so it will hear the speech and save the command in the database. It will identify a user's intent from the spoken word and perform the actions accordingly. It can convert text to speech as well.

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Track – I (CSE & IT)

ICRISET/T1028

ARTIFICIAL VISION FOR VISUALLY IMPAIRED USING AR

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ABSTRACT:

Our eyes are one of the significant organs for living a normal life. But some people are not blessed with it, visually impaired individuals usually struggle in recognizing the things in their vicinity and navigating inside their house. Artificial Vision helps them to overcome this difficulty by identifying objects and providing indoor navigation with integrated voice assistance. Augmented reality, a rapidly growing technology, which uses Computer Vision to identify images and objects, helps us in overcoming the disability of the visually impaired people. By using ARCore's (Google's Augmented Reality SDK) cutting edge technique - Simultaneous Localization and Mapping (SLAM), we created an indoor navigation system, and by using Vuforia (Augmented Reality SDK) we created an object identification system. The result of this research is an android application that can recognize the object and produce voice feedback of its name, and provide navigation inside the house with voice assistance.

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Track – I (CSE & IT)

BAYMAX - HEALTHCARE COMPANION FOR CANCER PATIENTS

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ABSTRACT:

World Health Organization (WHO) reports that, the second major cause of death is cancer. Life of people who have cancer is daunting. Their heart is open to all negative emotions like anger, fear, depression, guilt, helplessness, etc. People around them are also finding it difficult to cope with it. They require constant support to discuss their problems with and to provide them with factual information. This paper introduces a potential solution to provide them with what they are seeking for a Chabot. The proposed Chabot is a cancer Chabot designed only for people dealing with cancer. People can ask about anything and everything about cancer-symptoms, treatments, survival and so on.

The proposed Chabot is developed using Google Dialog flow and JSON. JavaScript Object Notation is an open standard file format, and data interchange format, that uses human-readable text to store and transmits various array data types. It enables users to add logic to the application, incrementally, making it more powerful and robust. The proposed Chabot consists of handoff feature which forwards the user conversation to human via call or message.

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Track – I (CSE & IT)

ICRISET/T1030

WEB APPLICATION FOR CAMP BOOKING

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ABSTRACT:

The application works as a platform for booking camps online. There are two types of users - camp host and visitor. Any visitor who has camping facilities to provide can post and ad. The camp host can post advertisements for his camp's price and specifications in the application. Interested people can apply to the advertisement post by the host. The users can pre-book the camps on a particular date for ensuring their camping. The host will take responsibility and guide the visitors on camping until the visitors stay there. The visitors can put ratings and reviews about the camp in the advertisement post after camping. It helps in connecting people who have a camping mindset. The application promotes camping in places that have rich flora and fauna. The users who have attracted to nature will get a better experience by camping.

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Track – I (CSE & IT)

ICRISET/T1031

DEEP LEARNING: A REVIEW

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ABSTRACT:

Deep learning is an emerging area of machine learning (ML) research. It comprises multiple hidden layers of artificial neural networks. The deep learning methodology applies nonlinear transformations and model Abstract: ions of high level in large databases. There cent advancements in deep learning architectures within numerous fields have already provided significant contributions in artificial intelligence. This article presents a state of the art survey on the contri- butions and the novel applications of deep learning. The following review chron- ologically presents how and in what major applications deep learning algorithms have been utilized. Furthermore, the superior and beneficial of the deep learning methodology and its hierarchy in layers and nonlinear operations are presented and compared with the more conventional algorithms in the common applica- tions. The state of the art survey further provides a general Overview on the novel concept and the ever-increasing advantages and popularity of deep learning.

Keywords: Deep learning, Machine Learning, Applied Deep Learning.

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Track – I (CSE & IT)

OVERVIEW OF ERROR DETECTION AND CORRECTION TECHNIQUES IN DATA LINK LAYER

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ABSTRACT:

In digital systems, the analog signals will change into a digital sequence. This sequence of bits is called DataStream. The objective of this paper represents that the change in position of a single bit also leads to a major error in the data output. In this paper, we present an overview of error control regarding error detection and error correction. It reveals that finds errors and uses error detection and correction techniques to get the exact or approximate output. Error control describes how the network handles and detects errors, especially in the data link layer. Error control happens in the data link layer. In this article, mainly discuss the type of error detection mechanisms that are used to detect the errors and how the errors will be corrected so the receiver can extract the real data.

Keywords: Types of Error, Error Detection Codes and Techniques, Error Correction Techniques

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Track – I (CSE & IT)

REAL ESTATE PRICE DETECTION SYSTEM USING AMENITY DETECTION ALGORITHM

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ABSTRACT:

Our project is to use Machine Learning to detect the price of real estate properties. The system we create takes the amenity in the real estates into account to give very accurate resale value of Real Estates. Detecting real estate property price value is simple. But things get a little complicated when we take the amenities present in the Real Estate such as furniture, interior design, and special fabrication that may be present in the property which has a huge potential to increase the value of the Real Estate. Currently in the industry the property is simply sold to the highest bidder. But clearly there is plenty of room for error in this current system. We propose to use Machine Learning algorithm to identify these amenities present in the property and adapt its resale value accordingly.

Thus, the system will be able to produce near perfect value for the real estate property. The system also learns constantly from its own predictions over time to give even more accurate results in the future. This system can remove the problem of bad pricing in the Real Estate Industry.

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Track – I (CSE & IT)

ICRISET/T1034

RPA ACADEMIC SUITE PACKAGE

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ABSTRACT:

Robotics Process Automation is an emerging technique for Business Process Automation with software Robots. In traditional system automation tools, the developers automate the task by writing scripts and providing interface to the back end system. But software bots can be trained in such a way it watches the human doing a particular task in user interface and performs automation on a repeated basis in the Graphical User Interface (GUI). This ABSTRACT: contains the package of Software Bots developed in RPA using Automation Anywhere tool. These bots can be used in various fields by different organizations. The bots and the field where these can bots can be used are discussed here. Server backup plays a major role in any institution. In case there is any problem with the server, data will be lost. This can be reduced by using this bot. Wi-Fi system is implemented all over the public places to provide uninterrupted network access to the mobile users. This is achieved through placing routers over interval of areas, to provide security to the users and owners of the network, a separate method is used which adds the MAC of permitted users to get connected and use the network on the go.

Result analysis in colleges is automated so that the complete report will be generated within minutes without any human intervention. E-Certificates will be generated automatically so that human effort will be reduced and the time consumption will be much less when compared to the traditional manual system. Filtering out the students who are eligible to attend the company's interview is automated. The accuracy of this automated task is 100%. Most of the organizations try to send wishes to their employees. But as it takes more time and human effort they are not trying it. Using the BOT developed for this process will help this situation. Wishes can be sent easily via email. Education has become a must in this century.

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Track – I (CSE & IT)

Exams play a vital role in a human's life. The software BOT developed for this process will prepare the question paper for a particular exam. This question paper can be prepared even by a non-teaching staff. So, no one knew the questions until it is given during the exam. The BOT developed to monitor the system performance will be send an email if something unwanted is going to happen with the computer. It always checks the CPU performance, RAM Usage, Hard Disk Usage etc. This might help in bigger organizations. Either in college or school one thing is common, the Bell. The bell ring is used to differentiate the period timings.

Always some person should go on and ring the bell. But the BOT developed, will ring according to the schedule daily. No bell ring will be missed out at any cost. The above mentioned bots comes under a package which is mainly focused in Educational Institutions. But these can also be used in other various sectors.

Keywords: Robotics Process Automation, Automation Anywhere, Graphical User Interface, Software BOTS, MAC address, JARVIS, E-Certificate, Placement, Wishes, Result Analysis, Question Paper, Bell Automation, Performance.

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Track – I (CSE & IT)

THE SCOPE OF VIRTUAL ROBOTIC PROCESS AUTOMATIONIN ONLINE SHOPPING IN INDIA

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ABSTRACT:

Companies are moving to virtual platform. Organizations in the service Industry now widely in the application of Robotic Process Automation (RPA) to achieve scalability and reliability while cost conscious. RPA helps to manage time and errors and enhance compliance and productivity and enable the shopping a value added activity rather than a tedious tasks which will be most widely accepted technology across the industries. It was found that the facilities to get the RPA shops are not available in India. The advantage of this type is that the shops will get easier facility rather than building and maintaining their own sites. The consumers are benefited since it becomes easier for them to search in RPA to get what they want. The various benefits of RPA include cost reduction, quality ensurance, ensuring that there is no stock out, scalability and revenue enhancement. One of the highlight is that it is available 24X7. This can be applied in online food delivery, shopping and other online services. This paper is a conceptual one which looks into the virtual platform of Robotic Process Automation.

*Keywords***:** Online, Virtual platform, Robotic Process Automation, stores, India

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Track – I (CSE & IT)

MENTAL STRESS DETECTION USING MACHINE LEARNING TECHNIQUES

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ABSTRACT:

Stress is a psychological condition that reduces the quality of sleep and affects every facet of life. Mental stress is a major issue nowadays, especially among youngsters. The age that was considered once most carefree is now under a large amount of stress. Stress increase nowadays leads to many problems like depression, suicide, heart attack, and stroke. In this paper, we are calculating the mental stress of students one week before the exam and during the usage of the internet. Our objective is to analyze stress in the college students at different points in his life. The effect that exam pressure or recruitments stress has on the student which often goes unnoticed. The main motive of this system was to use a machine learning approach in stress detection. Using information from the writings of a patient can potentially be a valuable source of information, especially now that more and more treatments involve computer-based exercises or electronic conversations between patient and therapist. In this paper, we study predictive modeling using writings of patients under treatment for a social anxiety disorder or mental stress. We extract a wealth of information from the text written by patients including their usage of words, the topics they talk about, the sentiment of the messages, and the style of writing. In this project, we study predictive modeling of mental stress and social anxiety symptoms. The dataset originates from a clinical trial in which patients engaged in a self-help treatment program and were supported by a secured email facility to interact with a therapist. The therapist pro-actively approached the patients on a weekly basis.

Keywords: Mental Stress, therapist, data

ICRISET/T1037

REVIEW OF IMBALANCED DATA CLASSIFICATION USING GENERATIVE ADVERSARIAL NETWORKS (GAN'S)

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ABSTRACT:

This paper discusses about application of Generative Adversarial Networks (GAN's) in the area of imbalanced data classification task. Here, we focus on the bank fraud detection exercise. The purpose of this project is to showcase a comparative study of established techniques when dealing with Imbalanced dataset classification task. One such example that we face day to day is identifying fraud transactions over regular transactions. It is difficult identify fraud cases because they occur very rare. In a typical bank setting, we may see 99.9% of transaction to be regular and around 0.1% as fraud. To put that in a perspective we would easily understand, out of 100K transactions 100 are fraud. The low number 100 gives us a sense about the problem, we would like to tackle. By the way, this problem is not new. Many years, Statisticians, Data scientist and machine learning folks have seen this problem and have tackled with some interesting approaches which later has been adapted more widely by other people. The techniques adapted by most people include – Balancing data, resampling fraud cases to augment data, optimizing model hyper parameters (Bayesian Hypermeter optimization), SMOTE (Synthetic Minority Oversampling technique), ADASYN (Adaptive synthetic sampling), outlier detection, and so on. These are all interesting approaches and let us call them **established techniques**. Can we do anything different from what has been done before? Well, that is the whole idea about this paper.

We implemented a GAN based network to carry out such operation and finally, we compare the performance of GAN's against established methodologies for imbalanced classification task

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Track – I (CSE & IT)

ICRISET/T1038

IDENTIFYING INFLUENTIAL USERS IN ONLINE SOCIAL NETWORKS USING EDGE WEIGHTED RANKING ALGORITHM

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ABSTRACT:

Detecting real influential users in a social media is important for many factors like, to promote a product that a company releases, promote a campaign or even stop false messages (rumors) among online community members. There are many existing methods to extract the top influential users, but most of these either concentrate on the network structure metrics or sentiment metrics alone. Here in this paper a hybrid approach has been proposed in which influential rank of a user is calculated using an Edge weight Based Ranking (EWR) algorithm. The core logic behind this methodology is, any communication between two nodes is taken into consideration and its associated sentiment is calculated. Then it considers degree centralities for general rank calculation and the sentiment associated of a user is fed as its 'weight'. After experimenting our proposed methodology with 500+ nodes and tracing the data, it's inferred that infection spread by top 10 users ranked by EWR is higher and faster than non-weighted ranking algorithm's influential users. The proposed ranking methodology exceed spreading rate when compared with other traditional network metrics and other ranking methods. Further interpreting the data, we also see that infection rate varies based on context of the data. Mostly it was sentiment driven and for few cases it was context driven with mild effect of underlying sentiment. The experimental results show that, considering users associated sentiment as weight, gives much more accuracy than traditional ranking methods. As the accuracy improved, the promotion/de-motion of messages could be done easily and effectively than earlier.

Keywords: Sentiment Based Ranking, Influential analysis, Sentiment, Online communities, Information Diffusion, Social Network

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Track – I (CSE & IT)

ICRISET/T1039

INDEPENDENTLY DEVELOPED MODULES FOR DATA MANAGEMENT

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ABSTRACT:

The present pattern for implementing a philosophy based data administration framework is to gain by efforts made to outline a preexisting well-secured Data Management System. The technology adds up to concentrating from the reference DMS a bit of mapping pertinent to the new application needs a module, possibly customizing it with additional obligations to the application under development, and after that dealing with information set utilizing the ensuing mapping. The current meanings of modules and we present novel properties of robustness that give intends to checking effectively that a vigorous module-based DMS develops securely both the pattern and the information of the reference DMS. The improved methodology helps in circulated module-based Data, where replying inquiries consolidates information of a few modules associated with possibly a few reference DMS. Modularized DMS in appropriated way needs to be classified in numerical path in which inquiry noting could likewise be integrated.

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Track – I (CSE & IT)

RUMOR CLASSIFICATION IN SOCIAL MEDIA USING PSM

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ABSTRACT:

Now a days there is an increasing use of social media platforms for the purpose of information gathering and news gathering, its immoderate nature will create peoples like keyboard warriors, rumormongers etc. This often leads to the emergence and spreading of rumors, i.e. piece of information that are unverified at the time of posting. At the same time, the openness of social media platforms provides opportunities to study how users share and discuss rumors, and to explore how natural language processing and data mining techniques may be used to find ways of determining their veracity. In this survey, we introduce the Big Data technology and discuss two types of rumors that circulate on social media; long-standing rumors that circulate for long periods of time, and newly-emerging rumors spawned during fast-paced events such as breaking news, where reports are released piecemeal and often with an unverified status in their early stages. We provide an overview of datasets into social media rumors with the ultimate goal of developing a rumor classification system that consists of four components: rumor detection, rumor tracking, rumor stance classification and rumor veracity classification. We delve into the approaches presented in the scientific literature for the development of each of these four components. We summarize the efforts and achievements so far towards the development of rumor classification systems and conclude with suggestions for avenues for future research in social media mining for detection and resolution of rumors.

Keywords: Bigdata, hadoop, java, hive

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Track – I (CSE & IT)

ICRISET/T1041

PREDICTION OF NETWORK BANDWIDTH AND PERFORMANCE ANALYSIS USING MACHINE LEARNING ALGORITHMS

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ABSTRACT:

The applicability of network design and service planning plays an important role in the bandwidth prediction. The way of predicting the network usage is to detect the required bandwidth for future periods. This prediction helps to utilize the subsistence facilities in the superlative way. Considering the high cost of bandwidth, at peak hours of network traffic we can follow a special type of scheme to purchase. For this research, the bygone usage data of FWDR network nodes is subject to univariate linear time series ARIMA model after systematic transformation is used to predict required bandwidth for future needs. The predicted data is compared to the factual data obtained from the same network and the predicted data has been found to be within 10% MAPE. This model reduces the MAPE by 11.71% and 15.42% respectively as compared to the non-systematic transformed ARIMA model at 99% CI. The outcome indicates that the systematically transformed ARIMA model has better concert when compared to non-systematically-transformed ARIMA model. Larger dataset can be taken along with season adjustments and consideration of long term variations, for more precise and longer term predictions.

Keywords: Bandwidth Prediction, ARIMA, Systematic Transformation, MAPE

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Track – I (CSE & IT)

HOME AUTOMATION USING INTERNET OF THINGS

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ABSTRACT:

This paper presents an efficient and cost-effective Arduino based home automation system using Internet of Things. The electrical and electronic appliances in the home such as fan, lights, outdoor lights, fire alarm, etc, can be controlled automatically using this technique. The proposed system is server independent. The home automation system using Arduino microcontroller and UART Bluetooth connectivity module helps the user to control various appliances and to reduce energy consumption. The Arduino IDE and DIY smart home Android App are used as the software to develop the system for home automation using Arduino. The response of the proposed system is good. It can be accessed from anywhere by using Internet and is useful for safety of the mankind.

Key Words: Arduino Controller, IOT, Automation, Bluetooth,

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Track – I (CSE & IT)

STOCK MARKET RECOMMENDATION BASED ON WEB MEDIA CONTENT

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ABSTRACT:

In the stock market industry, predictive analysis is important to invest the hard earned money. Though predicting equity markets and stock movements are not easy, equity analysts use many methods and indicators to predict market movements. As per the stock analysts, there are two types of indicators,

- Fundamental indicators – P/E(price-to-earning) ratio, P/B (price-to-book value) ratio, interest rates
- Technical Indicators - put-call ratio, volumes traded

In this article, a third indicator named web media content is proposed which decides the movement of equity prices along with the historic data. Share price depends mostly on the opinion of traders about company's future and its current and previous performance. Share market trend analysis is the process of analysing current trends in order to predict the future trends. Using share market trend analysis, we can attempt to predict if a particular market sector growing now would continue to grow in the future. Or will a market trend in particular sector start a trend in another. This market trend analysis involves lot of data, but nobody can predict the trends accurately with 100% guarantee.

A share market trend is based on the concept that the past movements are windows to the future trends. To achieve this historic trend analysis, a huge collection of historic data is gathered sector wise. This includes banking, Software, FMCG, Automobile sector etc. The web media content includes financial reports, news articles, blogs, Tweets, discussion boards and whatsapp messages. Here we can see that the equity market, web media and historic data are all separate entities. These three are not linked in the existing system. The behaviour of stock market requires sophisticated data to be integrated and analyzed that can capture multiple factors that affect the redemption behaviour. To minimize the gap, big data does predictive analytics using advanced analytics platform which can analyze these massive amounts of transaction data and other time trend variables at a macro level. This platform can investigate these factors for near real-time data and can provide highly accurate predictions for the redeeming investors in the future at investor-level.

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Track – I (CSE & IT)

MERGING HOSPITAL DATABASES USING BIG DATA ANALYSIS

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ABSTRACT:

Solutions for the searching methodologies and techniques of the hospitals in the emergency situations. The mobile application links all the hospital's official databases. The application displays all the details about the specific hospital and the official's detail and also displays the schedule details of the searched doctors of the respective hospitals. The description displays the total capacity and also the vacancy count in the hospitals, with the treatments practiced in the hospital and their remarkable achievements. The hospitals can also be sorted out based the user's requirement and can be filtered based on the situation. This application bridges the gap between the user and the hospital management and user can directly look into the management details without any fuss. The derived details are then collectively stored in a central database which is connected directly to the application. The communication between the databases is secured by the third-party applications using AWS Security. The database remains dynamic to the management and the user gets updated.

Keywords:

Mobile Application, Hospital Details, Central Database, Secured, Dynamically Updated

THE PROCESS AND USE OF REGRESSION TREE METHOD IN MEDICAL RESEARCH

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ABSTRACT:

This paper explains Classification & Regression Tree (CART) Technique and its purpose in Medical Profession. Classification & Regression Tree technique is an exploratory research method for depicting relations between variables not applicable to conventional regression analysis. Intricate interactions are shown between covariates and variables of interest in the form of inverted tree figures.

Data Availability – Most of the articles were searched through e-books, Medline Complete and CINAHL Plus databases, , hard copy research texts Classification and Regression tree is an important technique to recognize previously unseen data patterns. Issues like quality of data usefulness and validity of findings shall also be considered.

Effects in Medical Profession – Classification and Regression Tree are an impeccable tool for Doctors to bridge loopholes in application of evidence to practice. With enormous growing data and availability, Doctors also need to clearly understand and interpret the use and limitations of the CART method.

Conclusion - Classification and Regression Tree analysis is a simple method to design the communications between health-related variables that were not encountered previously. Knowledge is depicted pictorially, giving a detailed understanding of intricate relationships in an accessible way to other medical and nursing profession

Keywords: Classification Tree, Medical Research, Recursive partitioning, regression tree.

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Track – I (CSE & IT)

ICRISET/T1046

SMART VEHICLE SECURITY SYSTEM

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ABSTRACT:

Modern world vehicles are not just mechanical devices but are smart enough to make decisions and act based on real time inputs. This feature also results in various technical vulnerabilities. So, security systems are inevitably part of today's life. Here in the proposed work a real time vehicle security system and malware detection system developed and implemented. The proposed system will ensure that only the authorized person will be able to activate and use the car and thus ensuring the unauthorized access is prevented. When the car ignition is to be activated, the security system will initially check the person's valid authentication and allow the valid user to access it. If it detects any unauthorized access, the proposed Person Authentication System (PAS) will prevent the person to operate the car and it will send the alert information image to the system controller. Also the malware system detects any spyware in the image to determine the authenticity of the image.

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Track – I (CSE & IT)

ICRISET/T1047

AUTOMATIC FACE MASK AND BODY TEMPERATURE DETECTOR

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ABSTRACT:

Corona virus **(COVID – 19)** is wreaking havoc in the world. Almost every country suffering from corona virus. WHO has already announced it is a pandemic disease and many cities are under lockdown situation people don't step out their homes and there has been a need to **wear mask** and **check human body temperatures** routine coughs, sneezes, or speaksy. So, in this project Face Mask Detector and a body temperature detector is used to intimate the person to wear mask and check their body temperature without human support. In this project, face mask detection Platform uses image recognition process to recognize whether person is not wearing a mask. It can be connected to an alarm buzzer in the entrance of offices, airports, malls, shops and hotels. If a person enters without wearing mask it alarms the buzzer and indicates the person to wear mask automatically without human support. This project also contains automatic body temperature detector, it can be fixed in the entrance of the shop like in the entrance door etc. Whenever a customer enters into the shop, while they cross the door where the detector is fixed it will automatically check there body temperature and it will display the temperature in the screen, if temperature is normal it indicates with a green light indication and in case of high temperature (**Fever**) it indicates with red light buzzer sound. It all works without human support.

ICRISET/T1048

A CAT SWARM OPTIMIZATION FOR FAULT CLASSIFICATION IN WEB-APPS USING MACHINE LEARNING

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ABSTRACT:

The term web-application defines the present powerful pragmatics of the site, where the client has control. Discovering flaws in such unique substance is trying, with respect to whether the shortcoming is uncovered or not relies upon its execution way. In addition, the multifaceted nature and uniqueness of each web application make short coming is uncovered or not relies upon its execution way. In addition, the multifaceted nature and uniqueness of each web application make shortcoming evaluation an incredibly difficult and costly errand. Additionally, artificial issue infusion models are run in controlled and mimicked conditions, which may not be illustrative of this present reality deficiency information. Ordering flaws can wisely improve the nature of the web-applications by the appraisal of plausible shortcomings. Right now, exact investigation is led to arrange blames in bug reports of three open-source web-applications (qaManager, bitWeaver, and WebCalendar) and audits of two play store web-applications (Dineout: Reserve a Table and Wynk Music). Five regulated learning calculations (innocent Bayesian, choice tree, bolster vector machines, K-closest neighbor, and multi-layer perceptron) have been first assessed dependent on the regular term recurrence opposite archive recurrence (tf-idf) include extraction strategy, and in this way, an element choice technique to improve classifier execution is proposed utilizing molecule swarm streamlining (a nature-roused, meta-heuristic calculation). This paper is a starter exploratory investigation to fabricate a mechanized instrument, which can ideally order issues. The experimental examination approves that the molecule swarm streamlining for highlight choice in issue classification task beat the tf-idf filter-based classifiers with an average accuracy gain of about 11% and nearly 26% average feature reduction. The most noteworthy exactness of 97.35% is appeared by the choice tree after element choice

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Track – I (CSE & IT)

CODE WAR

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ABSTRACT:

Mobile phones are most significant one in this day and age. In this serious world, in training insightful, it is useful for understudies. In days of yore in the event that they had any questions about their examinations they should look for library or companions home. Yet, presently they can find solutions to their inquiries from where they are. The main required things are cell phones and information. It truly spares their time and makes them read more things and achieve more stamps. Application is a sort of programming that permits you to perform explicit undertakings. Applications increment client commitment. There are increasingly more applications to help make considering both simpler and progressively fun. Applications for your telephone and PC make it simple to get to your notes across stages whenever. Applications can enable you to centre, smooth out, and increment your profitability at the same time. Points of this venture are to build up an android and IOS stage upheld test application named "code war". It is a disconnected test application and questioner can take an interest for MCQ test with time limit. Along these lines, objectives of this venture to encourage clients to design tests just as giving tests with an android and IOS. Easy to use condition design is likewise focus on this task application.

Key Words: multiple question and answer

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Track – I (CSE & IT)

ICRISET/T1050

DETECTION, PREVENTION AND REPORTING OF ACCIDENTS FOR A POWERED TWO-WHEELER SAFETY SYSTEM USING IOT

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ABSTRACT:

This paper mainly aims with the development of safety system which is coordinated by the use of smart helmet unit and intelligent bike to decrease any type of accidents for two-wheelers vehicles. Here various sensors are used with each having its own task, such as Pressure sensor and accelerometer sensor are used mainly to detect whether the riser is wearing the helmet, alcohol sensor to detect the alcohol content, and if the helmet is not worn by the rider the bike engine connected to a micro-controller chip doesn't start. When rider meets with an accident the sensor detect the motion and reports the issue using certain protocols of IOT.

DISTRIBUTED DIGITAL LEDGER WITH ASCERTAINABLE PRIVACY USING MACHINE LEARNING

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ABSTRACT:

Distributed ledger is a database that shares information and synchronised across the network. Distributed digital ledger proposes the knowledge of sharing the data of their own, which is stored in a secured manner. Even though the data are stored in decentralized which record is a grouping transaction. Rather than having a central administrator like a traditional database, the ledgers have a system of synchronized databases that provide an auditable history of information and are visible to anyone within the network. The data can be viewed and shared privately across the network. We use Threshold Pallier theorem to share and view the data. The Ledger is the admin who uploads and modifies the case details. Ledger will also generate the member id for the advocates, judges and clients. The member id will be unique and it is generated using threshold pallier theorem for privacy. The advocates and the judges can view and share the case details for reference. The clients can search advocates for their case. The Machine learning is used to find advocates for specific cases. The data sets of advocates with their specializations are fed to the database. So that the client can easily find the advocate with specified specialization. The threshold pallier theorem manages and decides whether the data should be shared publicly or privately.

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Track – I (CSE & IT)

IDENTIFYING INFLUENTIAL USERS IN ONLINE SOCIAL NETWORKS USING EDGE WEIGHTED RANKING ALGORITHM

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ABSTRACT:

Detecting real influential users in a social media is important for many factors like, to promote a product that a company releases, promote a campaign or even stop false messages (rumors) among online community members. There are many existing methods to extract the top influential users, but most of these either concentrate on the network structure metrics or sentiment metrics alone. Here in this paper a hybrid approach has been proposed in which influential rank of a user is calculated using an Edge weight Based Ranking (EWR) algorithm. The core logic behind this methodology is, any communication between two nodes is taken into consideration and its associated sentiment is calculated. Then it considers degree centralities for general rank calculation and the sentiment associated of a user is fed as its 'weight'. After experimenting our proposed methodology with 500+ nodes and tracing the data, it's inferred that infection spread by top 10 users ranked by EWR is higher and faster than non-weighted ranking algorithm's influential users. The proposed ranking methodology exceed spreading rate when compared with other traditional network metrics and other ranking methods. Further interpreting the data, we also see that infection rate varies based on context of the data. Mostly it was sentiment driven and for few cases it was context driven with mild effect of underlying sentiment. The experimental results show that, considering users associated sentiment as weight, gives much more accuracy than traditional ranking methods. As the accuracy improved, the promotion/de-motion of messages could be done easily and effectively than earlier.

Keywords: Sentiment Based Ranking, Influential analysis, Sentiment, Online communities, Information Diffusion, Social Networks

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Track – I (CSE & IT)

ICRISET/T1053

A DISSERTION OF DATA SCIENCE AND ITS ISSUES &APPLICATIONS

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ABSTRACT:

Data Science refers to a study of extracting, collection, gathering data, representing and protecting data to be used for business purposes or in technical issues. Despite the very fact that the name Data Science seems like something which meant, databases and software engineering, various sorts of quantitative and qualitative aptitudes including nonmathematical abilities are additionally required here. Data Science is especially breaking down information. This paper illustrates what's Data Science, How it processes, and also its Applications. Section II of this paper consists of the various reviews regarding data science. Section III of this paper illustrates about the entire process of knowledge science. Section IV describes all the related research issues for data science. At the top the paper is concluded with some suggested future work regarding data science. Within the present paper the authors will plan to investigate the various issues, execution and difficulties in territory called Data science

Keywords: Information, Data Science, investigation, management, cloud computing

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Track – I (CSE & IT)

GENETIC ALGORITHM BASED PCA CLASSIFICATION FOR IMBALANCED DATASET

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ABSTRACT:

The real world dataset such as defects in products, credit card frauds, disease diagnosis and natural calamity occurrence are large and often imbalanced. In this paper, aGA (Genetic algorithm) algorithm based error classification for imbalanced dataset is proposed. Traditionally, principle component analysis (PCA) was applied for dataset processing and error identification. The approach produced a binary form result for error present in dataset. In imbalanced dataset, it is important to determine the location and error percentage in dataset. The above achieve by GA where the dataset are selected at random and compare with original dataset for error location identification. Furthermore, the sample patch size select at different levels make it easier to process different dataset size. The proposed GA algorithm detects error location and increases processing time of imbalanced dataset

ICRISET/T1055

AN INTELLIGENT SELF - TUNING HYBRID POWER GENERATION SYSTEM

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ABSTRACT:

A hybrid power generation system is proposed in this paper. The system consists of solar power, wind power and an intelligent power controller. Intelligent power controller has the ability to adapt to any situation and environment factors. It has the ability to think to its own. Thus the intelligent controllers are none other than NEURAL NETWORK and a FUZZY LOGIC CONTROLLER. MATLAB/Simulink was used to build the dynamic model and simulate the system. In order to achieve a fast and stable response for the real power control the intelligent controller is used. It consists of a neural network controller – back propagation theorem (BPT) and fuzzy logic controller (FLC) for maximum power point tracking (MPPT). The pitch angle of wind turbine is controlled by the fuzzy logic controller, and the solar PV system uses neural network controller – back propagation theorem (BPT), where the output signal is used to control the dc/dc boost converters to achieve the MPPT. Then the boosted output voltage is given to three phase inverter, now the DC voltage is converted to AC voltage and then the produced AC voltage is given either to the grid or to a load. By the intelligent controllers like neural network controller and a fuzzy logic controller MPPT efficiency has been increased much. The other advantage of this system is that it reduces the total harmonic reduction, as it uses renewable energy sources such as wind and solar power; it's a non-polluting and eco-friendly generating system.

Keywords: intelligent controllers, hybrid power generation, grid connected system, maximum power point tracking

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Track – I (CSE & IT)

E-LEARNING-FUTURE OF EDUCATION

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ABSTRACT:

This paper studies the e-learning standards in present and future digital age. Because of rapid growth and development of computers and internet in education a large number of e-learning systems developed. Now e-learning is become next generation of education. This paper focuses on what is e-learning, objectives & student approach. As e-learning provides anytime, anything, anywhere learning approach. It can include delivery of just-in-time information, guidance from expert, training.

Keywords: rapid growth; generation; student approach; anytime; anywhere; anything

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Track – I (CSE & IT)

IMPROVEMENT OF CREATIVE ATTENTION OF TEACHERS IN TECHNOLOGY

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ABSTRACT:

This article discusses the creative approaches of elementary school students to technology lessons, how to build creative abilities, how to create creative students, how to create creativity, how to engage students in technology and technology.

Keywords: concepts of creativity, creativity, education and training, educational materials, creative students, creativity, technology training, hobbies, safety rules

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Track – I (CSE & IT)

ICRISET/T1058

DETECTION AND EXTRACTION TEXT INFORMATION OF CHARACTERIZE AND ASSESSMENT IN VIDEO

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ABSTRACT:

In the Text information present in pictures and video contain helpful data for programmed comment, ordering, and organizing of pictures. Extraction of this data includes location, limitation, following, extraction, upgrade, and acknowledgment of the content from a given picture. Be that as it may, varieties of text because of contrasts in size, style, direction, and arrangement, just as low picture differentiation and complex foundation make the issue of programmed text extraction amazingly testing. . Video text acknowledgment, or video OCR, is a helpful device to describe the substance of video containing overlay (text inscriptions superimposed over the video symbolism, for example, in communicate news projects) and scene (text that shows up in the genuine scene of the video, for example, text on road signs, nameplates, and boards). Individuals are progressively making recordings might be for business use or individual use; this is prompting developing substance of Video. While we can catch, pack, store, transmit and show video with incredible office, altering recordings and controlling them dependent on their substance is as yet a non-insignificant movement. This paper focuses on extricating text out of the video outlines, removed from the video. An enormous number of methods have been proposed to address this issue, and the reason for this paper is to characterize and audit these calculations, talk about benchmark information and execution assessment, and to bring up promising bearings for future examination.

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Track – I (CSE & IT)

A FRAMEWORK FOR LENGTH INDEPENDENT WRITER IDENTIFICATION BY USING FASTER-RCNN IN DEEP LEARNING

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ABSTRACT:

Author's Identification from a transcribed book is one of the most testing Machine learning issues in view of the variable manually written sources, different dialects, and the similitude between essayist's example, setting variety, and certain attributes of penmanship styles. In the current framework, a blend of the profound and hand-made descriptor is used to take in designs from the manually written pictures. The presentation of the strategy is acceptable; in any case, the technique had a few issues. Thus, we structured a completely utilitarian profound Learning system to defeat the downsides and to give access to the numeric qualities and extraordinary images. In this approach, plan we consolidated Faster-RCNN calculation to extemporize and defeat the disadvantages in existing framework and it will improve the exhibition in all viewpoints.

SURVEY ON POLARITY SHIFT HANDLING TECHNIQUES IN SENTIMENT ANALYSIS

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ABSTRACT:

This paper presents a survey on sentiment analysis with respect to the polarity shifting problem. Sentiment Analysis is one of the most widely researched applications of Natural Language Processing. The opinions mostly expressed in social networking sites can be harnessed through automated methods using sentiment analysis. Polarity classification is the most classical sentiment analysis task which aims at classifying reviews into either positive, negative or neutral. Polarity shifting is a challenge to sentiment classification and is considered as one of the main reasons why the standard machine learning algorithms make inaccurate predictions. In this paper various techniques to handle the polarity shift problem are explained. A comparitive study is done on these techniques and the classification performance of each technique is explained.

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Track – I (CSE & IT)

ICRISET/T1061

DISTRIBUTED DIGITAL LEDGER WITH ASCERTAINABLE PRIVACY USING MACHINE LEARNING

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ABSTRACT:

Distributed ledger is a database that shares information and synchronised across the network. Distributed digital ledger proposes the knowledge of sharing the data of their own, which is stored in a secured manner. Even though the data are stored in decentralized which record is a grouping transaction. Rather than having a central administrator like a traditional database, the ledgers have a system of synchronized databases that provide an auditable history of information and are visible to anyone within the network. The data can be viewed and shared privately across the network. We use Threshold Pallier theorem to share and view the data. The Ledger is the admin who uploads and modifies the case details. Ledger will also generate the member id for the advocates, judges and clients. The member id will be unique and it is generated using threshold pallier theorem for privacy. The advocates and the judges can view and share the case details for reference. The clients can search advocates for their case. The Machine learning is used to find advocates for specific cases. The data sets of advocates with their specializations are fed to the database. So that the client can easily find the advocate with specified specialization. The threshold pallier theorem manages and decides whether the data should be shared publicly or privately.

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Track – I (CSE & IT)

AN EFFICIENT METHOD OF PREDICTING PHISHING WEBSITES USING MACHINE LEARNING ALGORITHM

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ABSTRACT:

There are varieties of users who purchase merchandise on-line and create payment through numerous websites. There were multiple websites raised to user for supply of sensitive knowledge like username, word or MasterCard details etc. usually for malicious reasons. This sort of web sites |ins internet sites is understood as phishing website. In order to observe and predict phishing web site, we have a tendency to projected associate intelligent, versatile and effective system that's supported exploitation Machine learning technique. We have a tendency to enforced classification algorithmic rule and techniques to extract the phishing knowledge sets criteria to classify their legitimacy. The phishing web site is detected supported some vital characteristics like URL and Domain Identity, and security and encoding criteria within the final phishing detection rate. Our system can use machine learning algorithmic rule to observe whether or not the site is phishing website or not. This application is employed by several E-commerce enterprises so as to create the total group action method secure. Machine learning algorithmic rule employed in this method provides higher performance as compared to different ancient classifications algorithms. With the assistance of this method user also can purchase merchandise on-line with none hesitation.

Keywords: Phishing; Merchandise; legitimacy

ICRISET/T2001

ADAPTIVE HYBRID TRANSMISSION SCHEME FOR MOBILE IPTV

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ABSTRACT:

The Internet Protocol Television (IPTV) service is becoming more and more popular among telecommunications companies because it can deliver TV programs anytime anywhere. In this paper, we propose and analyze AHT algorithm based on unicast and multi-channel multicasting to enhance not only service blocking probability but also reduce overall bandwidth consumption of the wireless system which has very limited resources compared to wired networks. To show the performance of proposed scheme, we compare it against traditional unicast and multicast transmission.

*Keywords***:** IPTV, Unicast, Multicast, Blocking probability.

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Track – II (EEE&ECE)

ATTENDANCE MANAGEMENT SYSTEM USING CONTOUR LET ALGORITHM

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ABSTRACT:

In this paper we find a technique for Face acknowledgment based understudy participation framework execute by utilizing Mat lab reproduced and Worldwide Framework for Versatile correspondence equipment module. The framework incorporates terminal Face obtaining module and participation module. It can understand consequently such capacities as data procurement of Face, preparing, what's more, transmission, Face coordinating and making a participation report. The distinguished pictures are then upgraded and perceived utilizing face acknowledgment procedure. The perceived pictures are contrasted and the pictures in the pre-existing database. Contour let change based calculation has been utilized as they include extraction and K-closest Neighboring Calculation (KNN) as the classifier for the characterization a short time later. The proposed new calculation is applied to facial acknowledgment on ORL database; better execution is picked up contrasted and those customary calculations, for example, Head part investigation (PCA) and Direct Discriminant Examination (LDA) and so forth. The outcomes have additionally demonstrated the viability of our proposed calculation. After perceiving the face the participation has taking, this framework sends the participation of each understudy to their parent's versatile through GSM. Participation framework encourages access to the participation of a specific understudy in a specific class.

Keywords: KNN-K Nearest Neighboring Algorithm, DRLTP- Discriminative Robust Local Ternary Pattern DFB- Directional Filter Band PIR-Passive Infra Red EEPROM-Electrically Erasable Programmable Read Only Memory.

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Track – II (EEE&ECE)

ICRISET/T2003

HUMAN HAND PROSTHESIS BASED ON THE GENERATION OF EMG SIGNAL

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ABSTRACT:

A microchip based control framework which forms a fixed arrangement of customized directions to control electromechanical hardware which might be a piece of a significantly bigger framework and a method of working, sorting out or performing one or numerous assignments as per a fixed arrangement of rules, program or plan additionally a course of action in which all units gather and work together as indicated by a program or plan with the assistance of this innovation we are going to structure prosthesis of human hand. EMG signal is the chronicle of unconstrained electrical action of the mind over a little time period. Signs are created by assault of neurons inside the minds which are estimated and assessed by EMG. EMG signals are low voltage flags that are tainted by different sorts of clamors that are additionally called as antiques. As these signs are utilized to analyze different sorts of mind related illnesses like narcolepsy, Sleep apnea disorder, Insomnia and parasomnia it gets important to make these signs liberated from commotion for legitimate investigation and location of the maladies. The primary point of the venture is to make a savvy prosthetic arm constrained by the surface EMG signals which would encourage the in an unexpected way abled with arms that they couldn't imagine anything better than to get. To serve diversely abled individual creatures by outfitting innovation is our maxim. Discrete wavelet change offers a viable answer for de-noising non-fixed signals, for example, EMG because of its shrinkage property. In this paper, we investigated the utilization of wavelet de-noising technique to EMG signals procured during various rest stages characterized by the RK rules, with the goal to recognize reasonable thresholding rules and edge esteems.

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Track – II (EEE&ECE)

ICRISET/T2004

VIRTUAL INTERFACE COMMAND AND TARGET OBLITERATING ROBOT

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ABSTRACT:

The proposal of this project is to create an robot which is controlled by the soldiers away from the war field through virtual reality technology .To reduce the death rate of our soldiers while fighting against the bane we are predisposed to do an automaton. This robot with a camera is placed in a remote location to capture the environment in visual form using ARDUINO. The captured visuals are displayed on the user's mobile phone. The Smartphone reads the accelerometer and magnetometer data of the direction in which the user turns his head, say, right or left. This data is sent to the modem over Wi-Fi and to the Arduino board, which, in turn, provides these values as inputs to the servo motors. Two servo motors are used to move the camera—one for the vertical movement and the other for the horizontal movement. By giving inputs to the main frame using joystick controls the camera and sends the video output to the video receiver side which may be monitor, mobile phone, or video viewer screen. Here we use cell phones as viewer screen. An important feature of this robot is that we can also develop the system by incorporating gun mechanism which helps the soldiers to fight away from the war field. The virtual telepresence robot can also be moved in any direction through an app installed in the user's Smartphone. When hardware assembly is done, install all the required apps in your Smartphone as mentioned earlier. Through the Smartphone we can able to see the action lively and also it can be stored.

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Track – II (EEE&ECE)

SENSOR BASED AUTOMATIC RAILWAY GATE CONTROL SYSTEM

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ABSTRACT:

Sensor based automatic railway gate control system is presented in this paper. The proposed method replaces the unmanned railway gate system into automatic system. Often we see news about accident at unmanned railway gate which causes serious injuries or sometimes even death to human beings and many animals like cow, buffalo, horse etc. This paper suggests effective method to save so many human lives due to accident and to protect the animals being hit by the train at unmanned railway gates. We use Infrared sensor, vibration sensor, GPS and GSM module to implement the proposed system. The infrared proximity sensors are used to detect the arrival of the train well before the railway station. As soon as the train nears the station, an alert signal is produced and the gate is locked gradually. The proposed system was designed and tested by making it as small hardware. The proposed system can be implemented by Indian railways with the least amount when compared to its revenue.

Keyword: Sensor, infrared, vibration, accident, unmanned railway gate.

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Track – II (EEE&ECE)

HEALTH MONITORING USING WEARABLE IOT SENSOR

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ABSTRACT:

The Internet of Things provides an efficient and new life to the healthcare field. It also has a rapid development of many fields. But the more important are real in the field of Medical. One of the better ways the doctors are capable to certainly and quickly right to use the relevant patient information and including the patient medical history. Through the Internet of Things tremendously improves the quality of information and the employee care in the Medical field. So IOT offers an actual platform to interconnect the all the resources which offers flexible operation and cost saving options to both healthcare professionals and patients. This work illustrates the design and implementation of a smart workplace health monitoring system. Here, an employee can be monitored using a collection of lightweight wearable sensor nodes for real time sensing and analysis of various vital parameters of patients. The devices seamlessly gather and share the information with each other and also store the information making it possible to collect record and analyze data. Therefore the patients will have high quality services because the system supports medical staff by providing the real-time data gathering by eliminating the manual data collection and by enabling the monitoring of huge numbers of patients. We are using temperature sensor, heartbeat sensor and GPS. Those sensor values are proposed by microcontroller and those data's are transferred through via LORA to other microcontroller. At the other end LORA receives the sensor data and transferred via GPRS to internet (GPRS) which is stored in cloud. This system enables to send real time notifications to responsible for the care of elderly in case of emergency.

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Track – II (EEE&ECE)

ICRISET/T2007

DESIGN OF LOW POWER AND HIGH SPEED RECURSIVE PARALLEL MULTIPLIER

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ABSTRACT:

Multipliers are vital components of any processor or computing machine. Often, performance of microcontrollers and Digital signal processors are evaluated based on number of multiplications performed in unit time. Hence better multiplier architectures are bound to increase the efficiency of the system. The Aim is to reduce the power and increasing the speed in different types of multipliers using Recursive Architecture on FPGA. The term Recursive means "divide-and-conquer". This method is used to reduce large problems to smaller problems. Recursive multiplier is one such promising solution. Its simple architecture coupled with increased speed forms an unparalleled combination for serving any complex multiplication computations. Tagged with these highlights, implementing this with reversible logic further reduces power dissipation. Power dissipation is another important constraint in an embedded system which cannot be neglectedfor giving minimum delay for multiplication of all types of numbers, either small or large. Further, the Verilog HDL coding of Recursive Multiplier for 8x8 bits multiplication and their FPGA implementation by Xilinx Synthesis Tool on Spartan 3E kit have been done.

Keywords: Xilinx, Spartan 3E kit, Multiplier 8x8

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Track – II (EEE&ECE)

FOREST MONITORING AND ALERT SYSTEM

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ABSTRACT:

The primary focus of this project work is to design a forest monitoring system that examines possible danger and alert the trekker or safari experts inside the forest. The proposed system is aimed to identify the wild animals or any sudden forest fire to alert the human to safeguards their life. This is achieved by the proposed device that transmits a voice alert to the trekker. Simultaneously the liveliness of the trekker is also monitored by recording his vital health parameters. In case of any danger, an emergency call is sent to the forest ranger control room. Here WSN nodes are used for efficient data communication since internet is not reliable. Location of the trekker can also be tracked using the unique code of the node. This would provide the forest ranger to have control over a vast forest. The proposed project is implemented through Arduino processor with various sensors incorporated to support the identification and monitoring of forest environment. The monitoring surveillance utilizes image processing and recognition to identify the type's animal. The functional test mode of this project is exhibited through the usage of MATLAB tool.

DESIGN OF 3×3 REVERSIBLE GATE USING COMBINATIONAL CIRCUITS

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ABSTRACT:

An Arithmetic logic Unit (ALU) is used in arithmetic, logical function in all processor. It is also an important subsystem in digital system design. Arithmetic Logic Unit (ALU) is one of the most important components of any system and is used in many appliances like calculators, cell phones, and computers. This paper presents various designs of reversible logic gates used for reversible operation & one of the applications as combinational circuits. The model of computing in which the computational progression is reversible or to some extent time inverting is entitled reversible computing. In the modern epoch reversible logic has materialized as a promising, competent technology comprising its applications in low power CMOS, quantum computing, nanotechnology, and optical computing. The conventional gates such as AND, OR, and EXOR are not reversible. In this paper the authors have proposed a new 3×3 reversible gate and also proposed the reversible combinational logic circuits with better optimized quantum cost, garbage outputs and delay. The proposed new reversible logic gate is represented by quantum implementation. The quantum cost of proposed gate is 4. The quantum cost, garbage output and delay of proposed reversible 1-bit comparator circuit are 6 which are better w. r. t. previously reported results. Reversible logic has extensive applications in quantum computing, low power VLSI design, quantum dot cellular automata and optical computing. While several researchers have investigated the design of reversible logic elements, there is not much work reported on reversible combinational circuits.

ICRISET/T2010

SOFT ROBOT LOCOMOTION THROUGH ENVIRONMENT GROWTH

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ABSTRACT:

In this across realms and length scales, certain cells and life forms explore their surroundings not through velocity however through development. This example of development is found in contagious hyphae, creating neurons, and trailing plants, and is portrayed by expansion from the tip of the body, length change of several percent, and dynamic control of development bearing. This outcome in the capacities to travel through firmly compelled situations and structure helpful three-dimensional structures from the body. We report a class of delicate pneumatic robot that is fit for a fundamental type of this conduct, developing generously long from the tip while effectively controlling bearing utilizing installed detecting of natural improvements; further, the pinnacle pace of extending is practically identical to paces of creature and robot movement. This is empowered by two standards: Pressurization of an altered flimsy walled vessel permits quick and significant extending of the tip of the robot body, and controlled hilter kilter stretching of the tip permits directional control. Further, we exhibit the capacities to extend through obliged conditions by abusing aloof misshapenings and structure three-dimensional structures by stretching the body of the robot along a way. This paper gives and our investigation helps establish the framework for designed frameworks that develop to explore the earth.

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Track – II (EEE&ECE)

DEVELOPMENT OF RECEIVER SNR RATIO USING DIVERSITY COMBINING TECHNIQUES

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ABSTRACT:

High data rate limit and colossal consideration region are the essential troubles for future remote correspondence structures. Adaptable communicators are required to be power viable and should have proper BW use. They should have capacity to direct normally obvious and minuscule obscuring. Better than average assortment procedures achieved through multi-radio wire structures presented at transmitter/recipient help with fighting multipath obscuring. In This Paper we can see about the different copies of signs got past different grouped assortment way are solidified by appropriate joining techniques. Starting late supportive correspondence has happened to unprecedented energy among researcher since it clears out multi-receiving wire systems and uses a methodology where various center points share their gathering mechanical assemblies and range to fight multi-way obscuring. Catchphrases - Obscuring Channels; Average assortment Uniting Procedures; Accommodating Correspondence.

Keywords: Fadding,Blurring,Spread

ALERTING AND BREAKAGE DETECTION IN HIGH VOLTAGE TRANSMISSION LINES

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ABSTRACT:

Many times we read in newspapers that Humans & Animals die due to electrical shock in remote areas or in agricultural areas as contact with broken & hanging live supply wires. Safety circuitry of Distribution Company is inadequate and due to this line remains live with broken wires. Here we describe a modification to an existing power distribution system for wire break detection and a power supply breaking mechanism. Circuit breaker with shunt trip mechanism breaks the supply and avoids damages from electrical accidents due to overhead transmission lines conductor breakage problems. We utilize various communication devices such as WSN and GSM modules to provide indication about the status of voltages transmitted from one section to another.

Keywords: Line Breakage Detection, Shunt trip mechanism, Alerting system, RF Communication, GSM.

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Track – II (EEE&ECE)

A PROTECTION METHOD OF FOREST TREES AGAINST POACHING USING WSN NODE

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ABSTRACT:

Many days we are reading in the newspapers about smuggling of the trees like sandal, Sag wan etc.These trees are very costly as well as less available in the world.These are use in the medical sciences as well as cosmetics. Because of huge amount of money involved in selling of such tree woods lots of incidents are happening of cutting of trees and their smuggling. To restrict such smuggling and to save the forests around the globe some preventive measures need to be deployed.We are developing such a system which can be used to restrict this smuggling. The sensors used in the tree unit such as vibration sensor, fire sensor, sound sensor collects the values of the surrounding and it matches the values with the fixed threshold and once the threshold is reached the tree unit sends the alert to the server unit which is monitored with a pc by a forest officer.

*Keywords:*WSN node, Zigbee, Sensor, MEMSaccelerometer, GPS Module.

ICRISET/T2014

HYBRID APPROACH FOR IMAGE RECONSTRUCTION USING VARIABLE SEGMENTATION & ANALYTICAL METHOD

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ABSTRACT:

In this study, we present a novel reconstruction technique for Discrete Tomography named Hybrid Segmentation using Analytical Reconstruction Method. This Algorithm is more robust and automated then traditional analytical and reconstruction techniques approach combines both high quality variable segmentation with the traditional analytical reconstruction technique FBP.We demonstrate that our algorithm perform under high accuracy with low number of projections with series of experiments.

SDR BLOCKS WITH ADAPTIVE MODULATION USING GNU RADIO CORES IN FL2440 HARDWARE

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Abstract:

A group of nodes (unlimited) is to be placed in network layer for inter process communication. The data security is taken care by the upper layer i.e. Transport (TCP/IP) and the network layer simply delivers data in an optimal manner. However, to ensure uniform SNR in each of the link, it is necessary to place critical design issues intrinsically in the individual nodes. For example, each node can autonomously detect the modulation and demodulate among a group set. The communication strategy is to look for the shortest path, identify the channel support in that path and choose the best modulation based on shortest path algorithm. Each node has the capability to perform (a) Modulation detection (b) Switch to the corresponding demodulator and get the packet. This process is recursively done at respective nodes as and when they receive the data. The metrics studied include the network layer metrics, wireless channel related metrics, modulation based aspects etc.

Keywords: Adaptive modulation, shortest path, channel support

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Track – II (EEE&ECE)

HUMAN ACTIVITY RECOGNITION WITH OPEN CV (COMPUTER VISION) AND DEEP LEARNING

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ABSTRACT:

With the increasing demand of security defense,anti-terrorism investigation and disaster rescue, human activity classification and recognition have become a hot research topic. When a human is illuminated by electromagnetic waves, a Doppler signal is generated from his or her moving parts. Indeed, bodily movements are what make humans' micro-Doppler signatures unique, offering a chance to classify human activities. Classification needs a lot of samples for training, however, in the real application, there is a certain gap between the simulated data and the real data, and the measured data is often difficult to obtain. Due to the non-stationary characteristic for human radar echoes, the spectrograms for the human activities show different micro-Doppler signatures. Therefore, we proposed a method of human activity classification based on spectrograms using deep learning techniques, including deep convolution generative adversarial network for expanding and enriching training set and a transfer-learned deep convolution network (DCNN) for feature extraction and classification, which is based on a DCNN pre-trained by a large-scale RGB image data set-that is, ImageNet. Finally, the simulation results verified the effectiveness of the proposed method.

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Track – II (EEE&ECE)

DESIGN OF INTERLEAVER BASED UWB TRANSMITTER FOR WIRELESS SYSTEM

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ABSTRACT:

Wireless communications have grown tremendously over the last decade. The ever-growing demand for higher quality and faster multimedia content delivery over short distances drives the quest for higher data rates in wireless personal area networks (WPANs). IEEE 802.15.3a WPAN proposal support data rates up to 480 Mbps by using   multi-band orthogonal frequency-division multiplexing (MB-OFDM) system over ultra wideband (UWB) channels. Power consumption and decrease in chip size are main criteria of any wireless system. Reconfiguration allows efficient resource exploitation by configuring task on demand and decrease chip size which reduces the power consumption. Due to dynamic reconfiguration smaller FPGA's are used by outsourcing configuration data.UWB transmitter was designed with a reprogrammable puncture to prove the efficiency of multirate MB-OFDM. Increasing in data rate increases   burst error. To minimize burst error, error correction coding is introduced along with interleaver .To show   reconfiguration latency is minimum; a reprogrammable interleaver is implemented in Xilinx virtex.

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Track – II (EEE&ECE)

WIRELESS ECG DETECTOR

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ABSTRACT:

People facing many health problems have become a major issue in their lives. Especially people suffering from Heart Attack are affected a lot. This serious problem may occur even at night time or early mornings. In such situation people are unable to alert the other people for help. Hence there must be a system which can protect them in such difficult situations. This system suggests a new technology for detection of heart attack with one touch system using GSM. The problems are overcome by using Arduino UNO, GSM, Heart Beat Sensor, Pressure Sensor, PPG and Buzzer involving IOT. In this the heart beat sensor tracks pulse rate for respective person and sends emergency message using GSM. This advanced technology does not need manual operation. The device itself gets activated according to the rate of heart beat and send message.

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Track – II (EEE&ECE)

GUIDING AND CONTROLLING BOAT USING WIRELESS SYSTEM

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ABSTRACT:

Location based alert services are essential components for fisherman's; during bad climate conditions and lagging of technology in rescue support our fisherman's facing a life time problem with neighbor countries. On considering the issues we proposed a low cost and easy tracking device for fisherman's which is used to track their relatives, friends and other fisherman's. If someone crossing the border the entire fisherman's will get the alert about the person who crossedso other fisherman's can rescue them if they wrongly crossed or due to boat failure the crosses. Location based alert represent an emerging location-aware, just-in-time web services, which can propagate information of location to the right users at the right time and the right place. It reminds the user about the location when the user enters some predefined location of interest in the future. The user can even choose from preselected major locations or recently selected locations. The main objective of the project is to develop a GPS (Global Positioning System) based application to handle the following requirements: To alert the users through an alarm when the user reaches near a present location, To retrieve the users current location coordinates (Latitudes and Longitudes), To allows users to set their target location and save that target to the list, Allows user to delete and edit the alerts, To allow user to the put the reminder text along with the alarm that data was transmitted to the coastal guard using water as medium. The transfer of message is done by using water as medium. The information's are transferred using electrodes placed at equal distances.

Keywords: Wireless Systems, Controlling Boat, Water as Communication Medium.

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Track – II (EEE&ECE)

OPTICAL MILLIMETER WAVE GENERATION USING LiNbO$_3$ MZM FROM MICROWAVE FREQUENCY

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ABSTRACT:

Nowadays demand for high broadband data transfer between devices is ubiquitous and hence requires specialized communication techniques. Optical communication (OC) seems to be a promising candidate to support the ever increasing demand for broadband connectivity. OC is preferred over other communication methods due to its tolerance to lightning, electro-magnetic interference (EMI) and its flexibility to extend the bandwidth for data transmission. OC fibers can transmit data in the form of light for long distance without using any active optical taps hence data loss will be less. Even when multiple optical fibers are employed in parallel, the possibility of cross-talk is less compared to others. It is evident that conversion of electrical signals into optical signals is mandatory for data transmission through optical fibers. Hence generation of optical millimetre wave from RF wave is a potential area for research. In the proposed method optical millimetre waves are generated from microwave frequency using LiNbO$_3$ Mach Zehnder Modulator (MZM). The features of the optical signal generated can be appraised by means of visualizers like optical spectrum, electrical spectrum, bit error rate (BER) versus received power and eye diagram for different fiber length.

Keywords: LiNbO3 – Lithium Niobate; Mach Zehnder Modulator; Millimeter wave; Optical fiber; Visualizers.

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Track – II (EEE&ECE)

INDOOR NAVIGATION USING VISIBLE LIGHT COMMUNICATION FOR BLIND

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ABSTRACT:

Blindness is a condition in which an individual loses the ocular perception. Mobility and Self-reliability for the visually impaired and blind people has always been a problem. In this project a smart Electronic Location Aid (ELA) has been proposed. This smart guiding ELA ameliorates the life of blindas it is well equipped with Internet of Things (IOT) and is means to aid the visually impaired and blind to walk without constraint in indoor environments. This system is highly efficient, reliable, fast responding, light weight, low pressure consuming and cost effective device for the visually impaired.

EFFECTIVE DATA ANALYSIS AND CROP YIELD PREDICTION USING MACHINE LEARNING ALGORITHM

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ABSTRACT:

Agriculture plays an important role in agricultural based counties like India, where it contributes more to growth of India's GDP. One of the major works in agriculture is foretelling of crop yield. The unpredictable weather in environment which puts the farmer into a risk. So this necessity the proper historical data, which can be reserved. Those stored data can be examined in order to foretell the yield in agriculture. For this purpose, there is a need of advanced technologies in every facet of agriculture. In order to choose such a crop which suits best for that area and foretell yield? Data mining technique with advanced form can be introduced. Raspberry PI, Soil moisture sensor, Temperature and Humidity sensor and rainfall sensor were utilized in order to achieve this. Thus by using Multiple Linear Regression technique we can divine the crop production.

*Keywords:*Data Mining, Regression, Crop Yield, Linear Regression

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Track – II (EEE&ECE)

ICRISET/T2023

AUTOMATED PARALYSIS PATIENT CARE SYSTEM USING IOT

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ABSTRACT:

The noble aim behind this project is to reduce the effort of paralysis patient. Our aim is to improve the daily living standard of paralytic patient. These people are not capable of full body movements as compared as normal person. In such a situation, we propose a system that helps disabled person convey a message by simple motion of his finger. Many people are suffering from paralysis and most of the paralytic patients depend on care taker. In order to assists these paralytic patients our proposed system work by reading the tilt direction of the user part. This device needs to be mounted on finger of hand. The user now just needs to tilt the device which mounted in finger in particular angle to convey messages. Tilting the devices in different directions convey a different messages. According to the messages we can nurse the patient. This system will send the messages by using IOT (Internet of Things).Finger of the hand play a major role in proposed system. The patient made to wear the sensor gloves which contains motion sensor. Hence we can able to reduce the effort of paralyticpatients. We also include the patient monitoring system to know the vital parameters of the paralytic patients. We can able to know the pulse rate and temperature of the paralytic patients by using biosensors. Buzzer is available for emergency case.

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Track – II (EEE&ECE)

DESIGNING A TUNABLE SUB THRESHOLD FLIP-FLOP THROUGH ADAPTIVE FEEDBACK EQUALIZATION

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ABSTRACT:

In this paper the use of sub threshold digital CMOS logic circuits is becoming increasingly popular in energy-constrained applications where high performance is not required. Sub threshold circuit design is a compelling method for ultra-low power applications. In existing system adaptive feedback equalizer circuit can reduce energy consumption and improve performance of the sub threshold digital logic circuits. At the same time, the tune ability of this feedback equalizer circuit enables post fabrication tuning of the digital logic block to overcome worse than expected process variations as well as lower energy and improve performance. By using adaptive feedback equalization, timing errors can be removed. In existing system the Master-Slave Flip-Flop (Static Flip-Flop) is designed. In master slave flip flop 22transistors are used it requires more area.

*Keywords:*Sub Threshold Digital Circuits, Leakage Energy Component.

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Track – II (EEE&ECE)

GENERATION OF ELECTRICITY FROM POOL SLUDGE USING BIO-WASTE DERIVED ACTIVATED CHARCOAL ELECTRODES THROUGH MICROBIAL FUEL CELL

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ABSTRACT:

Conventionally,weuseplatinum/palladium as electrodes and Nafion as Separator in the microbial fuel cells (MFCs), which are expensive and hazardous in nature. In this research,we employed bio-waste derived activated charcoal select rodes and eco-friendly lab glove separator for assessing the performance of laboratory-scale MFCs.The Activated Charcoals (AC) were synthesized from Palm fibers (Borassus flabellifer),Gooseberry seeds (Ribesgros sularia) and Indianalmond (Terminaliacatappa) seeds at high-temperature carbonization followed by $ZnCl_2$ activation.The ACs was characterized interms of Ph and ash content. The porous structure and pore size distribution of the carbonized products and ACs were analyzed by Field Emission Scanning Electron Microscopy, and identified that the ACs possesses more porous structure than their carbonized precursors. We employed pool sludge (inoculums) as anodic solution and potassium permanganate solution as cathodic solution instead of using hazardous potassiumferricyanide solution. Here, we attained highest voltage output of 0.92V for the palm fiber-AC electrode based MFC. In this research, we employed cost effective and eco-friendly bio-waste based electrodes, eco-friendly separator, non-hazardous cathodic solution and nutrient-rich inoculums, thus the proposed scheme could be used for fabricating low cost, non-polluting and high performance MFCs.

Keywords: bio-waste, microbial fuel cells, activated charcoal, carbonization

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Track – II (EEE&ECE)

ICRISET/T2026

FAULT RECOGNITION ON POWER LINES USING VIDEO PROCESSING

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ABSTRACT:

Power utilities and transmission firms are now facing major Operating challenges due to harm or pollution to the insulators. Severe conditions in the environment can affect the surface of the insulator and alter the distance of creep age. Inspection of high voltage power lines is therefore an important task to prevent the transmission system from having failed. The intent of this project to instigate fault detection, for two terminal long transmission lines network using image processing technique. Image processing technique is frequently used to solve the issues in all fields. Digital image processing OTSU thresholding function is used for fault identification and diagnosis. In this work, we describes a novel approach to detect the fault occurred due to intrusion of mobile equipment's such as crane etc. on the power line in videos. Here the videos are converted into frames of images and these images are analyzed to find any possible fault. That is the images are greying scaled and thresholded to detect the power line. OTSU is an automatic threshold selection region based segmentation method. Then the feature of the image is extracted using the Gabor filter. Gabor filters are orientation-sensitive filters, used for texture analysis. This approach describes a realistic low-cost method for detecting actual contact of mobile equipment with a high-voltage line and providing an alert. The transmission lines play a very important role in transmitting from one end to the other end the other end with enormous amount of electricity generated at various generating station over a distance of several hundred with kilometers across the world. Accident statistics indicate that a system like this may eliminate more than half of the fatalities.

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Track – II (EEE&ECE)

ICRISET/T2027

IMPLEMENTATION OF SMART HELMET WITH THEFT CONTROL AND ALCOHOL DETECTION

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ABSTRACT:

In this paper, we've designed a Smart Helmet for the safety of bike riders which includes an alcohol sensor to ensure the one who is driving the bike is sober and a rider authentication using fingerprint sensor to control theft. The programmed ArduinoUno indicates whether the rider is wearing the helmet with the help of push button, the alcohol sensor MQ-3 which is used to check the alcohol consumption. A fingerprint sensor is used to track down fingerprint for additional safety and security for the bike rider. If all the parameters are ok, then the biker is ready to use the vehicle. It also consists of GPS and GSM module to improve the bike safety and show the exact location of the vehicle. Fingerprint sensor find unauthorized person then GSM send message to user so for the safety purpose we developing this smart helmet.

Keywords: MQ-3 sensor, RF 433 MHz module, Fingerprint sensor, GSM module, GPS module, Arduino Uno, Arduino Mega.

ICRISET/T2028

CRACKS AND POTHOLES DETECTION IN HIGHWAYS USING CONVOLUTIONAL NEURAL NETWORK

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ABSTRACT:

In this paper, with evolution of data technology, the digital image processing has the characteristics of strong permeability, large use of action and good comprehensive benefits. It promotes evolution of the digital image processing technology within the detection of structural engineering. It favors the creation of smart, streamlined, and networked systems. Cracks and potholes is that the commonest threat to the security of industry. Supported the structure of the digital image processing and therefore the structural characteristics of the planning engineering, this pre analyses the practical application value of the digital image processing technology within the crack identification of machine tools structures and established a bridge structure health monitoring system supported the digital image processing technology. Initially the dataset with crack and potholes are collected and are preprocessed, the crack and the path-holes are detected CNN and this model is simulated using Mat lab.

Keywords: Internet of Things Technology cracks Convolution neural network Image Processing

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Track – II (EEE&ECE)

INFORMATION RETRIEVAL USING EMBEDDED SYSTEM

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ABSTRACT:

People affected by blindness and visual disease need to use special devices to overcome daily tasks. Visually impaired people walk with the help of electronic devices. Implementation of a system using raspberry pi3 is proposed to read written script on hand-held objects. While the visually impaired person shakes the object, the automatic OCR system not only converts the printed books to digital texts, but also reads them as an audio output. The proposed design will be able to determine the distance among the vision less person and object using the ultrasonic sensor then the space will be informed over ear buds along with buzzer indication. GPS modules provide good solution in terms of position, speed, accuracy, high insensitivity and tracking competence. As an added advantage GPS module is included to have a track on the blind users.

Keywords: GPS Module, OCR, IOT, Text Localization

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Track – II (EEE&ECE)

ICRISET/T2030

ANALYTICAL SURVEY ON ULTRA-WIDE BAND ANTENNA FOR LOWER BAND 5G APPLICATIONS

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ABSTRACT:

We live in a busy moving world, where everyone is connected via internet through mobile phones. So, the number of mobile users is increasing exponentially. We are a step behind to use a new generation of mobile technology which is called 5G (5th Generation) with the major expectations, and it is designed to work on greater frequency band. Micro strip patch antenna is used widely due to its light weight, low volume, low cost, low profile and smaller in dimension in mobile communications. Ultra-Wide Band (UWB) antenna is one of its type that have very wide bandwidth and supports high data rates which also reduces the number of antenna effectively. There are many system parameters and antenna parameters are considered during the design of antennas to get better reliable mobile system. Recently, 3.5 GHz band has been identified for IMT services in India. 3300-3400 MHz of 100 MHz spectrum is available on pan India basis and out of 200 MHz in 3400-3600 MHz band. In this paper, we presented an analytical survey on the various UWB antennas with their types and system parameters to be considered to get a more efficient lower band frequency 5G system.

*Keywords:*UWB, FRACTAL, MPA, 5G

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Track – II (EEE&ECE)

WIRELESS COMMUNICATION TECHNOLOGIES

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ABSTRACT:

This project is about the wireless communication technologies and describes the most widely used wireless technologies like Wi-Fi,GSM,and Bluetooth.This communication technologies is growing fast in adopting and hence various basics and engineering aspects. It provided in various topologies and architecture. Communication system revolutionized the way people communicate.Wireless technologies have followed different path amined at unified target related to performance ang efficiency in high mobile environment.This provides the high level overview of wireless technologies.

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Track – II (EEE&ECE)

MOBILE ROBOT FOR RESCUE SYSTEM

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ABSTRACT:

Many areas of world are getting affected due to natural calamity. Disasters are exceptional and unstoppable events that are either man made or natural, such as terrorist attacks, earthquakes, wildfires and floods etc. Disasters create emergency situations to provide basic services to the victims must be coordinated quickly. Many times, we observe that many people die by trapping in these disasters but the people also die on large scale just because they didn't get help at instant time or the help provided to them is late. This paper proposes a mobile robot based on Wireless Sensor Network (WSN) which is designed for human existence and detection in an unmanned area can be done only by an automated system. This system proposed a monitoring system using sensors unit and camera module for live streaming.

*Key Words:*WSN, Robot, Rescue system

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Track – II (EEE&ECE)

INTELLIGENT GREEN HYBRID CHARGING INFRASTRUCTURE FOR SUSTAINABLE E-MOBILITY GROWTH IN INDIA

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ABSTRACT:

In India, presently, most of the motorized vehicles normally used for transportation purpose are fuelled by petrol, diesel, and natural gas. These vehicles are considered to be the major source of pollution because of high carbon emission by them. Further, the petroleum products, which are being used in the vehicles, are depleting at a very alarming rate. As per various reports it has been estimated to have petroleum resources available for the next few years only. Therefore, there is a global need to find a suitable alternate to run the motorized vehicles. Recently, the National Electric Mobility Mission Plan 2020 was introduced by the, Ministry of Heavy Industries and Public Enterprises, Government of India, to address the environmental challenges due to conventional motor vehicles and to boost efficient electric vehicles (EVs) which are characterized by eco-friendly, reliable and affordable. Recent breakthrough in the electric vehicle (EV) technology and affordable battery storage have shown hope of mass level adoption of EVs. Accordingly, the Government of India has also taken various initiatives, such as FAME (Faster Adoption and Manufacturing of Hybrid& Electric Vehicles) India Scheme to support hybrid/electric vehicles market development and Manufacturing eco-system. However, there are various challenges which may have a negative impression and has large impact over penetration of EVs. Indian electric power distribution system (EPDS) and charging infrastructure needs to modernized and give special focus to move towards green transportation. Author and his team have done an extensive analysis to understand technological opportunities and real-time feasible solution. In this novel initiative, Author has introduced a hybrid renewable energy model and multidimensional charging station in a simplified manner. During the time of high demand and peak load condition, there is excessive stress on the conventional grid infrastructure.

Which becomes very tough to continue electric supply for charging station? This situation can be overcome using Distributed Energy Resources (DERs), Smart Scheduling and Cutting-edge technologies which helps in strengthening power autonomy. India is among the elite class countries to have the largest growing economy and this can further be strengthened by emphasizing energy-efficient green technologies which in turn also helps to maintain a sustainable environment. MATLAB based simulation has been performed to recognize the Viability of the proposed scheme under various challenges. Complex mathematical tool and strong algorithm has been used for optimizing power scheduling in effective and efficient way. Specific outcome with satisfactory result has been shown and discussed elaborately.

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Track – II (EEE&ECE)

LOCALIZED TRAFFIC CLEARANCE SYSTEM ENABLING GREEN PATH FOR EMERGENCY VEHICLES

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ABSTRACT:

The population of the world is rising tremendously. When the population increases, there is also a significant rise in the number of vehicles on the road, leading to increased traffic congestion and accidents. It is necessary to clear the traffic during heavy traffic congestion and to provide a special route to the emergency vehicle entering the road junction. To resolve this, a traffic clearance system based on RFID is being proposed which controls traffic and provides a clear path to the emergency vehicle. The proposed system is implemented experimentally using Microcontroller and LED. A signboard also shows the distance to the arrival of an emergency vehicle, which is determined using localization methods. Instead of installing GPS in every emergency vehicle, the RFID Tag is used. The use of GPS requires a clear line of sight with respect to the earthbound satellites as well as costly and power-hungry. The arrival distance of the vehicle is determined based on the signal strength obtained.

Keywords: RFID, Micro controller, Traffic Light, Localization

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Track – II (EEE&ECE)

DESIGN AND FABRICATION OF SINGLE PHASE TO THREE PHASE AC-AC POWER FREQUENCY CONVERTER

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ABSTRACT:

To Design a converter that would convert the Single phase supply of 230 V, 50 Hz to a power supply of Three Phase 50-110V, 60 Hz then to fabricate the converter with semiconducting switches and controller. This Converter can be used for Synchronization of Grids of different frequency that would help to form Globally Synchronized Electrical grid. The Instruments that were designed to operate with only on 60 Hz Power Supply can be used with this Converter. Problems occur when the load being powered is sensitive to the input power frequency Ex. Motor. The Machines which require three phase electrical power can be used with single phase power supply with this converter. Frequency oscillations occur when there is varying loads. In such cases this converter can be used to stabilize the varying loads with efficiency.

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Track – II (EEE&ECE)

ICRISET/T2036

VITALS MONITORING WEARABLE WITH HAND WASH REMINDER AND SOCIAL DISTANCE ALARM

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ABSTRACT:

This Project is fully focused on preventing the spreading of disease this device is mainly focus on public service sector people. A suit that measures the health parameters, with hand washes reminder and social distancing indicator. Example if a watchman in a mall is checking a person with some equipments if he has been affected without knowing himself he could become a bridge to spread the disease in order to avoid such things this project suit will help him to check himself and other person before he get into contact with them.

BACKGROUND OF THE PROJECT:

During this pandemic situation prevention is better than cure where we should be more careful where this disease spreads easily and it takes human being itself as a medium to spread. So it is a kind of motivation to do this project. Through this project we could stop or reduce the spreading of disease so this project could a step for this COVID 19 crisis.

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Track – II (EEE&ECE)

AUTOMATIC RAILWAY TRACK CLEANING SYSTEM BY USING ARDUINO

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ABSTRACT:

India is going towards the fantasy "Clean India". The serious issue we have in the railroad framework is four one is trash in the station from this thought we have built up a robot to clean trash between the rail route tracks and we had conquered these weaknesses in the defensive way. This paper means to introduce a model for a cost productive track cleaning machine which would demonstrate to be a brilliant option in contrast to the present framework set up whenever executed. The proposed model is intended to defeat detriments of the accessible machine. The current cleaning process on the tracks at Indian railroad stage is manual, however it defeats via programmed way. In this, the procedure of suction the track squanders by vacuum siphon philosophy. Sanitation at the railroad stages is the principal, significant prerequisite of creating rail line framework.

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Track – II (EEE&ECE)

A SENSORLESS CONTROL OF BLDC MOTOR DRIVE USING THIRD HARMONIC BACK EMF METHOD

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ABSTRACT:

For both domestic and industrial applications, the BLDC motor is widely being used. They are popularly used due to its reliability, controllability and compact size. BLDC motor is normally operated with one or more rotor position sensors or position encoders. This paper presents a sensor less technique for Permanent Magnet Brushless DC (PMBLDC) motor. The BLDC motors have an internal stator back EMF which is trapezoidal waveform with the help of this BEMF the technique is proposed. This proposed method will provides a wide range of speed control. A proposed sensor less scheme is used to override the demerits of conventional scheme. The rotor position detection can be measured at both stall and running conditions. In indirect 3rd harmonic BEMF method, the back EMF component is extracted from phase voltages (stator), third harmonic signals was filtered and it is fed as triggering pulse for the inverter. Even though this method provides a better speed performance than direct BEMF detection techniques .The dynamic performance of the method is highly effective than that of existing method. The simulation results of these method discussed in the below chapters. The simulation for proposed systems are done using MATLAB/SIMULINK software package (R 2014).

Keywords: Sensor less control, BEMF Sensing, third harmonic BEMF method, BEMF integration and MATLAB.

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Track – II (EEE&ECE)

GREEN ENERGY

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ABSTRACT:

According to the Environmental protection Agency (EPA), green energy provides the highest environmental benefit and includes power produced by solar, wind geothermal, biogas, low-impact hydroelectricity and certain eligible biomass sources.

Conventional energy sources based on oil, coal, and natural gas have proven to be highly effective drivers of economic progress but at the same time damaging to the environment and to human health.

The Potential of renewable energy sources is enormous as they can in principal meet many times the world's energy demand.

As we analyze, renewable energy sources currently supply, somewhere between 15 percent to 20 percent of world's total energy demand. The supply is dominated by traditional biomass, mostly fuel wood used for cooking & heating, especially in developing countries in Africa, Asia and Latin America.

A major contribution is also obtained from the use of large hydro power; with nearly 20 percent of the global electricity supply being provided by this source. New renewable energy sources (solar energy, wind energy, modern biomass energy, geothermal energy and small hydro power) are currently contributing about 2 percent.

A number of scenario studies have investigated the potential contribution of renewable to global energy suppliers, indicating that in the second half of the 21st century their contribution might range from the present figure of nearly 20 percent to more 50 percent with the right policies in place.

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Track – II (EEE&ECE)

ELECTRICAL SYSTEM DESIGN FOR AN EDUCATIONAL INSTITUTE USING ETAP SOFTWARE

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ABSTRACT:

The design and installation of electricity power distribution of any sector should be convenient so as to minimize the voltage drop, power loss with optimum protection system as per the standard. The paper analyses the electrical service design of educational Institute using ETAP software. The purpose of this work is to present a suitable approach to electrical service design based on IEC Standard. This work offers a design guideline for selection of protective devices, cables as per rating for maximum energy efficient wiring design. The case study includes 33/0.44 KV electrical system which is designed and validated using ETAP software.

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Track – II (EEE&ECE)

CLUSTER BASED ENERGY EFFICIENT TRUST MANAGEMENT MECHANISM FOR PILL BOTTLE MOUNTED WIRELESS SENSORS

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ABSTRACT:

The recent innovations in Wireless Sensor Networks (WSNs), the physical sensors, and the Internet of Things (IOT) have enabled more Cyber-Physical systems (CPS) applications within the connected health sector. Medication intake is one of these applications that focuses on finding an efficient, accurate alarming, and easy to use solution that tracks medication compliance. Such a system should be wireless, mobile, and high fidelity, to track the medication taking patterns. Here presents a non-invasive medication compliance monitoring system that is based on collaborative sensing technique. We investigate the feasibility of collaborative sensing with the aim of reducing overall energy consumption as well as, maintaining mobility in order to promote user's acceptability and usability. We conducted experiments examining medication intake activities. Our results indicate the monitoring of the developed multi-sensor system for pill intake. From the energy consumption point of view, our results show that our system can continuously work on a single coin-cell battery for more than 22 days, while maintaining regular medication intake monitoring. This paper presents an energy efficient trust management model for securing life-saving information with optimal power/energy consumption by sensor nodes. The proposed model of Pill sense is a cluster based three tier-architectures where first tier records the first-run configuration of the nodes. The second tier secures the data between the nodes (pillbox), and the third tier ensures energy efficiency by calculating energy consumption at every level and rotates cluster head among the nodes. The difficult task of energy efficiency is achieved through robust algorithms, which configure the nodes and train the network using a machine learning technique. The simulation results show smooth functioning of the network with less energy consumption.

Keywords: IOT, Biomedical sensors, Medical Wireless Sensor Networks, Cyber-Physical systems

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Track – II (EEE&ECE)

ARTIFICIAL INTELLIGENCE BASED MAXIMUM POWER POINT TRACKING FOR GREEN BUILDING APPLICATIONS

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ABSTRACT:

The intensification of building service demands and improvised comfort leads to the drastic increase in energy consumption. The building cluster consists of several types like residential, industrial and commercial buildings. Buildings across the world consume about one-third of the total energy produced from the primary energy resources. Energy-efficient buildings are of prime importance to enhance global sustainability, energy-saving and green society. Solar photovoltaic systems are being integrated into buildings to meet the building energy demand using renewable energy. The performance of the photovoltaic system lies on the varying scenarios and installation situations such as the intermittent nature of solar energy, temperature and shading effects. To optimize the output power of the photovoltaic system (PV) system broad investigation is carried out into direct strategies for maximum power point tracking (MPPT) systems. Among the different MPPT methods, artificial intelligence (AI) based MPPT procedures are fast, robust, and reliable and demonstrate to be effective and more attainable. In this present study, AI-based techniques are reviewed concerning the performance of currently acquiring techniques, theory of operation and applications. To provide researchers and scientist with valuable resources to acquire knowledge about working principle, selection and implementation of MPPT systems for green energy building applications are discussed.

References:

1. Seyedmahmoudian, M., B. Horan, T. Kok Soon, R. Rahmani, A. Muang Than Oo,S. Mekhilef, and A. Stojcevski. Renewable and Sustainable Energy Reviews 64 (2016): 435-455.
2. Mao, Mingxuan, Lichuang Cui, Qianjin Zhang, Ke Guo, Lin Zhou, and Han Huang. Energy Reports 6 (2020): 1312-1327.
3. Mellit, Adel, and Soteris A. Kalogirou. Energy 70 (2014): 1-21.

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Track – II (EEE&ECE)

FAST ACTING MAXIMUM POWER POINT TRACKING ALGORITHM FOR THERMO-ELECTRIC GENERATOR BASED POWER GENERATION APPLICATIONS

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ABSTRACT:

The thermoelectric generator (TEG) is a clean alternative and environment friendly renewable technology that requires no moving parts. Thermoelectric (TE) technology is regarded as for harvesting and recovering heat which is directly converted into electrical energy using thermoelectric generators (TEG). The recent developments in the field of thermoelectric generators (TEGs) made a significant impact on in transportation, industry and domestic applications. Thermoelectric generators acquire the lost thermal energy which is produced in extreme environments. However, practically TEGs is currently limited by its typical low conversion efficiencies. The recent energy crisis urges the researchers to discover various approaches to improve the efficiency of the TEG especially by increasing energy system efficiency. One of such approaches is the utilization of maximum power point tracking (MPPT) techniques. MPPT techniques are popularly used in literature for maximizing the power that is extracted from solar panels. Such techniques can be reused for the TEG scenario because TEGs also have I-V and P-V characteristics that follow the same principles as that of solar panels. The present research review article begins with the basic principles of thermoelectricity, design optimization of generators, various traditional MPPT algorithms for TEG, recent advancements and role of Artificial Intelligence (AI) and Internet of Things (IOT) in TEG applications are addressed.

References:

1. Yang, Bo, et al. Energy Conversion and Management 199 (2019): 111991.
2. Kwan, Trevor Hocksun, and Xiaofeng Wu. Energy Procedia 105 (2017): 14-27.
3. Yang, Bo, et al. Journal of Cleaner Production 248 (2020): 119301.

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Track – II (EEE&ECE)

ICRISET/T2044

DESIGN OF CUBE SAT USING ARDUINO TO DETECT ATMOSPHERIC TEMPERATURE, PRESSURE AND HUMIDITY

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ABSTRACT:

Weather is the state of atmosphere at a particular time and place with regard to temperature, moisture, air pressure, precipitation etc. Bio organisms need to adapt with the changing atmospheric conditions. It is therefore important to know the atmospheric condition for different applications.

The interest is to design an autonomous small cube satellite which can provide the information of weather from anywhere without using Network. Here a hardware model has been designed and implemented.

It is possible to provide instant weather report which can be used to compare the data of a place with some different altitude as well as for different time instant.
In meteorology, the main objective is to know accurate weather conditions with less human efforts, reliable and efficient data.

As the weather varies from place to place and with the altitude, it is difficult to get accurate weather for a particular location.

With the advancement of technology, specially embedded system & data acquisition systems, the problem of large set up area and cost has been reduced significantly.

Cube–Sat can be set up at home as well as in atmosphere or in space which can provide accurate ArduSat is an open-source Nan satellite, based on the Cube Sat standard. The extensive Arduino sensor suite on board gives students the opportunity to create their own satellite experiments and collect real-world space data using the Arduino open-source prototyping platform.

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Track – II (EEE&ECE)

SMART ANALYSIS OF MICRO GRID USING RENEWABLE ENERGY RESOURCES

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ABSTRACT:

Micro grid is a localized group of Low- Voltage network that can effectively integrate various distributed energy resources with latest trends renewable energy system. Micro grid normally consists of a central grid controller which is maintained by any of the latest control technologies. But the smooth functioning is possible if and only if the Micro grid is controlled in a smart way. Project concentrates on the power quality issues like reactive power compensation and mitigation of harmonics. Power quality monitoring will be done in an adaptive way by the usage of more intelligent systems. The project is implemented in MATLAB/SIMULINK platform.

Keyword: Micro grid, Power Quality, Harmonics, Reactive power compensation.

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Track – II (EEE&ECE)

ICRISET/T2046

ELECTRIFICATION OF RAILWAY SYSTEM USING DC GRID BASED ON RENEWABLE ENERGY SOURCES

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ABSTRACT:

This paper proposes a replacement railway electrification system within which the most block is victimization converters. Within the new projected system the design of railway electrification system is finished victimization VSC (Voltage supply Converter) and Cuk device. VSC-based unified theme can considerably facilitate the property among otherwise heterogeneous railway systems, whereas the mixing of distributed generation and storage is achieved in an exceedingly simple fashion. The necessity for a super ordinate system, and its role in coordinative native VSC controllers, in order that the ensuing power flows are optimized whereas the curved shape voltage is unbroken at intervals limits, are mentioned. Cuk device is employed to extend or decrease the voltage. The Cuk device is permit to vary dc output magnitude that's either bigger than or but the input voltage magnitude .The projected railway paradigm is compared with existing MVDC(Medium Voltage DC) design compared with the quality 25-kv,ac electrification system by means that of real case study.

Keywords: Voltage source converter (VSC), Cuk converter, Medium voltage direct current (MVDC).

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Track – II (EEE&ECE)

AUTOMATIC BOOKING SYSTEM TO CHARGE ELECTRIC VEHICLE IN CHARGING STATION

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ABSTRACT:

The rapid growth of the Electric vehicles leads to the essential prerequisite for a magnanimous number of recharging stations in the short radius. Unfortunately, there is no sufficient number of recharging stations in India, so it results in the vehicle traffic in the station. To improve the existing charging infrastructure, we have come with a solution by establishing the system developed through SQL and PHP platform to allocate the charging slots based on projected battery parameters, which uses data communication with recharging stations to receive the port availability information. The app displays the number of ports which is available and it automatically books the available port but if the port is not available it shows the port which will be available within 30 minutes and wait for the user command to book the port or search for another charging station.

*Keywords:*Electric Vehicles, E-Ports, Charging, Automation, Reservation, Automatic Notification.

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Track – II (EEE&ECE)

SMART HOME USING IOT

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ABSTRACT:

In this paper an affordable & user friendly remote controlled smart home device is introduced with Arduino UNO board, smartphone, electric loads & relays. This suggested system uses a mobile application that enables clients to monitor household appliances via IOT. Today some of the conventional home control programs were designed towards particular uses while the new system is a general purpose smart home system.That can be easily incorporated through established structure. The proposed solution seems to have more functionality than standard home monitoring systems which are operated with Bluetooth. This article also outlines the framework, potential research, & complexity of the hardware & software design. The planned home automation device model is being introduced & tested on devices, exact and planned outcomes have been given.

Keywords: Home automation; Smartphone; Arduino; IOT.

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Track – III (MECH)

ICRISET/T3001

THE NEED FOR HYBRIDIZATION IN POLYMER COMPOSITES-A CASE STUDY

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ABSTRACT:

The process of combining two or more different types of fibers together in a common matrix is   known as hybrid composites; not only fibers, in some cases fibers with fillers in common matrix are also said to be hybrid composites. Hybridization concept produces different range of properties as observed extensively by many research works. The advantages offered by the hybridization are reduced material costs to a great extent as well as enhanced performance can be obtained by the effect of Hybridization. This concept has a huge impact on the polymer matrix where enormous research has been done using polymer matrix in the hybridization. Some of the combinations of fibers such as banana/sisal, glass/banana, glass/sisal, oil palm/sisal, glass/oil palm, pineapple/glass, coir/glass, jute/flax, coir/sisal, coir/banana, basalt/flax, banana/red mud, sisal/red mud, bamboo/fly ash etc., which produce better performance composites and plenty of research work have been carried out by earlier researchers using glass fiber. Natural fibers of various types are reinforced with synthetic fibers producing a composite with high strength and at a low cost. This article intended to present case studies on the various combinations of hybrid composites developed and used for various applications during the past 25 years. In all the cases interestingly it was inferred by all the researchers that the addition of secondary reinforcement enhances anyone of the mechanical properties. As the technology gets updated by day to day the change in materials, product and process also needs updation. Based on this aspect, the materials offering better properties are able to obtain through the hybridization which creates a huge impact in the field of composites impact in the field of composites.

Keywords: Hybrid, Mechanical Properties, Polymers, Composite.

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Track – III (MECH)

ICRISET/T3002

AUTOMATION IN GRINDING PROCESS TO REDUCE MANUFACTURING COST

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ABSTRACT:

In the modern scenario of manufacturing industries are adapting to the automation to reduce the man power and to improve productivity of the product with good accuracy. In the existing center less grinding machine the unloading operations are done manually which increases material handling time, production inconsistency, machine lead time, monotonous to operator and chance of operator to be injured due to continuous rotation of the wheel at high speed. In this present work we are suggested to implement the automation in the unloading of the centre less grinding machine to reduce the manpower and continuous improvement. The project is intended to be in collaboration with BHARGAVI RUBBERS where it will be implemented and the influencing factors in the firm are taken accountable such as that the earning of the machinists involved in the grinding process and the cost of implementing the automation along with the existing infrastructure and profit made by the firm once the suggested idea yields results. To achieve acceptance, systems must be economic, useful for a range of operating conditions and reliable. Conclusions are reached on the basis of the rules which are true, and the search continues until a solution or set of solutions were found.

Key words: automation, unloading, centre less grinding.

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Track – III (MECH)

EXPERIMENTAL INVESTIGATION OF DOUBLE SLOPE SOLAR STILL USING THREE WAY REFLECTORS

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ABSTRACT:

This paper investigates the thermal performance of solar still using three-way reflectors. Solar distillation is one of the methods of utilizing solar energy for the supply of potable water to small communities where natural supply of fresh water is inadequate or of poor quality. Solar still is one of the cost-efficient methods of converting saltwater into drinkable water. Solar distillation is identified to be inexpensive, long-term, low technology system especially useful where the need for small plant exists. A number of variables were considered in designing solar still such as area of the solar still, water temperature, water level etc. Tests were carried out for different water samples of sea water. We found that the different types of solar still were used to convert the water. We selected double slope solar still and tried to improve its efficiency by the improvisation of the old still. The water level of the setup was varied to observe the difference in output. Also, thermal efficiency is increased with the help of three-way reflectors. The experiment was conducted, and some results were inferred. It was found that 0.5cm water level gives more yield in output water and has more efficiency. The use of three-way reflectors and suitable insulating material has significantly increased the thermal efficiency of the solar still

Keywords: Double slope solar still, three-way reflectors, water level, water yield.

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Track – III (MECH)

ICRISET/T3004

ANTI-JUICE JACKING SMART SOLAR CHARGER

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ABSTRACT:

Today, the world may be shrunk inside a few grams of a Smartphone. Still, in some cases, we move to some places and most of the Indians, we prefer Public Transport. During the cases, definitely some unavoidable situations happen. One such thing is Mobile loses its battery power. We too have a backup it will be not a Power bank, but a charger to use the free Electricity available in Bus Stand or Railway Station. But nearly in a year, Lakhs of Mobile Phones that connect in the charger is getting hacked. We still don't know or our mobile still works well. Because there are not injecting viruses, instead, they steal our Precious Data when we use their Electricity. The electricity is safe when supplied from Public Transports which includes MTC Buses Terminals or Railway Stations. But as a people, some hackers approach those places and fit their chips and place as normal as it is. So nobody knows whatever happens there. And this attack has been termed as JUICE HACKING and this is more common in Western and European Countries. To avoid this, in public places, and also to give Awareness on Electricity Conservation we plan a project. This project contains a Solar Panel with a Tracking Sensor, a Rectifier and a Battery. So, by designing and fabricating an Auto Tracking Solar Panel Cell Phone Charger at a low price is our project. So, that we can also give awareness to the public in an extremely new way.

Keywords: Juice Jacking, Solar Panel, Solar Project, Mobile charger, B type and C type, Solar Mobile Char.

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Track – III (MECH)

ICRISET/T3005

CLIMBING WHEELCHAIR WITH TO AND FRO ACTION OF STEERING MECHANISM

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ABSTRACT

Climbing wheelchair is a very cheap means of short distance transportation both in city and rural Area. Wheelchair is propelled by human energy and electric motor. Stair climbing functionality is embedded in the design through its structure and mechanism and slider crank mechanism is attached to rear wheel and it controlled by manual steering with to and fro action .A study has been performed with the existing model and design of Wheel chair .It has been observed that traditional wheelchair use age old Technology & mechanical design and hence non-ergonomic in manoeuvrability. An effort has been directed to design a lightweight, high strength, and ergonomically designed both humans pulled and electric powered Wheelchair. The proposed model will be powered with DC motor drive, in addition to human power. Both the options may work independently as well as in hybrid mode. The structural design of the wheel has been analysed using analytical System commercial software to see the effect different unbalanced stresses. It was observed that overall structural design was safe. The main factor of a wheelchair is laid on the angle of the stair and centre of gravity of the whole system. Understanding the different issues regarding the functionality of wheelchair and introducing an advanced design that will be an as help for the medical field and a helping hand for disabled people.

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Track – III (MECH)

DESIGN AND DEVELOPMENT OF LOW COST FOUR WHEEL STEERING MECHANISM

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ABSTRACT:

The paper is about the design and fabrication of the mechanism used in Four Wheel Steering system. Normally the 2 wheel steering works on the rack and pinion mechanism where the front wheels turn to the required angle to make the vehicle body turn. This paper is about making all the four wheels to turn when the vehicle is steered. A similar rack and pinion gear setup in placed in the rear side as well. Here the angle to which the rear wheels are turned is less than the angle to which the front wheels are turned. This 4 wheel steering serves the purpose of reducing the turning radius and to ensure the stability of the vehicle while changing the lanes in highways at high speed. There are two types in four wheel steering which is achieved by using the Spur gears and the Bevel gears .One is where all the four wheels steer in the same direction and the another one in which front wheels steer in one direction and the rear wheels steer in the opposite direction respectively. A centre setup is made where the alternate meshing of the bevel gears and the spur gears are done. Moving this centre part can make it possible to achieve the two modes of steering. A threaded rod is used for achieving the movement in the centre part.

Keywords: 4 wheel steering, Spur gears, Bevel gears.

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Track – III (MECH)

FINITE ELEMENT MODELING AND ANALYSIS OF PROSTHETIC KNEE JOINT

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ABSTRACT:

A disease called degenerative arthritis that affects line cartilage of the knee joint leads to severe pain within the joint. Sometimes it should require a replacement surgery of the affected knee with artificial components. Complexity in the geometry and non linearity of the materials of the knee makes difficulties within the analytical solutions of the mechanical behaviour of the joint. Knee joint is the most complex and essential joint within the human body. Motion of the joint mainly relies significantly on the function of the soft tissue constituents and also the four ligaments of the tibio femoral joint. These ligaments allow the joint to flexion/extension and rotation by enabling the femur and tibia to translate and rotate relative to every other. Along with these ligaments, a soft cartilage in the joint space is added to permits nearly frictionless contact between the bones. An artificial knee modelling is done using computational modelling which provides a far better way for understanding the interplay between the soft and hard tissue constituents of the knee. Design a model of prosthetic knee from available literature for the study of distribution of contact stresses by assigning it the fabric properties of conventional polyethylene and polyethylene chopped carbon fibre composite for tibial component and alumina ceramic for femoral component. The numerical estimation of contact stress was made by using software (ANSYS 14.5 APDL). The consequences of the sagittal radius, flexion angles on stresses at different loads were investigated.

Keywords: Finite Element Analysis, Modelling, Prosthetic Knee Joint, Contact Stress, Flexion angle and Sagittal Radius.

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Track – III (MECH)

DESIGN, ANALYSIS AND IMPLEMENTATION OF ROBOT ARM

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ABSTRACT:

Today, technology is developing in the same direction in line with rapidly increasing human needs. The work done to meet these needs makes life easier every day. Robot arms work with an outside user or by performing predetermined commands. Nowadays, the most developed field of robot arms in every field is the industry and medicine sector. The main focus of this project is to design and develop the mechanism for robotic arm for pick and place. The robotic arm is designed with 5 degrees of freedom and programmed to accomplish accurately simple light material pick and place task to assist in the production line in any industry. 3D printing method is used to fabricate the project's components of the robotic arm. Therefore, it provided more precise dimensions and huge time and cost-saving in this method. The robotic arm is equipped with 6 servo motors to link the parts and bring arm movement. Arduino, an open-source computer hardware and software is applied for control the robotic arm by driving servo motors to be capable to modify the position. Wireless control is done by using a smart phone with android operating system through a Bluetooth module. The robotic arm is under testing and validating its performance and the results indicates that it can perform the pick and place task properly. To establish a good simulation environment we use Fusion 360 Software.

Keywords: Robotic arm, axis, degree of freedom, working envelope and work volume, space, kinematics, payload, Pick & Place Robot, Robotic arm, Robo-Arduino.

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Track – III (MECH)

ICRISET/T3009

EXPERIMENTAL ANALYSIS OF PROSTHETIC KNEE JOINT

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ABSTRACT:

Knee joint consists of different components, i.e. femur, tibia, patella and menisci which make it a complex structure, undergoing different critical loads in human body performing motions and physical activities. The present paper focuses on the experimental analysis of photo elastic stresses of prosthetic knee joint using polariscope.

The 2D model of prosthetic knee joint under different sagittal radius and flexion angle are designed. Those samples are prepared by using epoxy resin sheets and compared their experimental results with the analysis software ANSYS Workbench.

So Overall, this study provides a guideline for fabrication of prosthetic knee joint at reasonable cost with better alignment of sagittal radius and flexion angles to withstand the loads under various situations.

*Keywords***:** Prosthetic, Knee joint, Photo elasticity, Experimental, Polari scope, Ansys.

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Track – III (MECH)

ICRISET/T3010

INTERNAL ROTATORY INSPECTION SYSTEM (IRIS) OF HEAT EXCHANGER

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ABSTRACT:

Maintenance of a heat exchanger always plays a critical role in oil and gas industries. Normally many end-users prefer to do full retubing rather than partial retubing in order to achieve more efficiency. But in case of Alloy steel tube based heat exchanger, partial retubing is preferred because cost of alloy steel tubes is ten times higher than the carbon steel tubes.

In this research, low efficiency heat exchanger was selected for research since it requires full retubing (maintenance) due to severe in-service tube thickness loss and low efficiency. Tube material was inconel SB 163-800H and the quantity of tubes was 286. Internal Rotating Inspection (IRIS) was selected among various advanced NDT methods used to reduce downtime resulting from catastrophic failures caused by erosion/corrosion or mechanical damage incurred during the running cycle. This technique detects a sizes wall thickness loss resultant from corrosion, erosion, wear, pitting, cracking, and baffle cuts. After IRIS inspection method was carried out, it was easy to identify how many tubes are exactly defective and requires retubing instead of full retubing. IRIS inspection method also provides the distribution of tubes by wall thickness loss of total 286 tubes in the heat exchanger.

Keywords: Heat exchanger, Retubing, Maintenance, IRIS inspection.

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Track – III (MECH)

PERFORMANCE, COMBUSTION AND EMISSION CHARACTERISTICS OF DIESEL ENGINE FUELLED WITH PAPAYA SEED BIO-DIESEL

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ABSTRACT:

In modern society, fossil fuels and the increase of greenhouse gases in the atmosphere, renewable bio fuels are the focus of several current research projects. For a fuel design process for future combustors the description of the influence of functional groups on the ignition behaviour of fuels can be an important step. Bio diesel is one of the modern alternative fuels which are renewable and it is renewable and it replaces the conventional fuel like diesel, Petrol and Natural gas. Biodiesel is biodegradable and non- toxic and has low emission profiles and so is environmentally beneficial. The aim of this project is to use alternative fuel which can produce power for stationary Diesel Engines can be used in irrigation and rural electrification. The blends (B50 and B100) of bio diesel are used for further testing. The performance, combustion and emission test were conducted on single cylinder 4-stroke diesel engines using different blends of these bio diesels and the results showed that B50 IT-21 is superior blend among other bio diesel blends. Further the performance and combustion characteristics of B50 IT-25 is very close to diesel while the emission characteristics of B50 IT-21 is better than that of diesel as the emission of CO, HC and smoke. Thus we concluded that B50 IT-21 is the most suitable blend for substitute of diesel which will reduce diesel consumption by 50%.

Keywords: Alternative fuel, Diesel engine, Performance characteristics, Combustion characteristics, Emission characteristics.

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Track – IV (S&H)

SOLUTION AND STABILITY OF n- DIMENSIONAL QUADRATIC FUNCTIONAL EQUATION IN BANACH SPACE

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ABSTRACT:

In this paper, the authors investigate the solution and Ulam - Hyers stability of an-dimensional quadratic functional equation

$$f(\sum_{a-1}^{n} ax_a) + f(\sum_{a-1}^{n-1} ax_a - nx_a) = 2f\left(\sum_{a-1}^{n-1} ax_a\right) + 2n^2 f(x_n)$$

in Banach spaces and its solution.

KEY WORDS AND PHRASES:

Quadratic functional equation, General Solution, Generalized Ulam-Hyers stability, Banach Space.

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Track – IV (S&H)

ICRISET/T4002

HYDROTHERMAL SYNTHESS AND CHARACTERIZATION OF MOLYBDENUM DISULPHIDE AT DIFFERENT REACTION TIME

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ABSTRACT:

The MoS_2 was synthesised by a facile hydrothermal solution route with different reaction time to investigate their effects on the morphology. MoS_2 samples were prepared by using ammonium heptamolybdatetetrahydrate and thiourea as the precursors in 1:2 ratio at 220 ^{0} C in muffle furnace. As synthesised MoS_2 samples were characterized by field emission scanning electron microscopy (FESEM), X-ray diffraction (XRD) & RAMAN. The FESEM results showed that the morphology varies from sheet cum flakes like structure to scattered nano-flowers to assembled micro-flowers as the reaction time increases. It is believed that nano-flowers can be used for the field emission measurements which can further applicable for the electronic applications.

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Track – IV (S&H)

A STUDY ON VARIOUS APPROACHES IN GRAPH THEORY

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ABSTRACT:

Graph Theory is extraordinary compared to other known, well known and widely investigated subject, having numerous applications and guesses, which are as yet open and considered by different mathematicians and terminal researchers along the world. Now a days the job of Graph Theory in different recorded is expanding, as of now it give more prominent usefulness, blend, and ease framework into certifiable planned frameworks. Graph hypothesis is in spot to assume broad jobs in genuine application and subsequently, this paper represents could do with by uniting all known current methodologies of Graph theory. This paper presents a study on the Graph Theory provokes pertinent to their approaches and methods. We broaden this survey and investigate the field of Graph Theory further, recitation different outcomes got by different creators.

Keywords: Graph Theory, Spectral graph theory, Stochastic System, Graphs, Application

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Track – IV (S&H)

PREPARATION AND PERFORMANCE OF CELLULOSE COATED HOLLOW FIBER MEMBRANE

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ABSTRACT:

Poly Acrylo Nitrile (PAN) hollow fiber membranes 294C, 310A, 310C and 315B were prepared by dry-jet wet spinning method. These membranes were coated with biopolymers to enhance the antimicrobial activities of the membranes. These prepared membranes were characterized in terms of morphology, protein separation and pure water flux. The antimicrobial activity of the prepared membranes was tested against *Bacillus subtilis* and *Escherichia coli*. The adhesion of bacterial cells on the surface of the hollow fiber membranes assessed through alcian blue staining and SEM study. Overall results showed that 310C Cellulose coated PAN membranes showed better antimicrobial activities compared to other membranes.

Keywords: Cellulose, PAN, Hollow fiber membranes; Antibacterial; SEM

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Track – IV (S&H)

CARBAZOLE PENDENT CYANATE ESTER CO-CURED SKELETAL MODIFIED MALEIMIDE END CAPPED BENZOXAZINE HYBRID BLEND

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ABSTRACT:

A new type of carbazole pendent skeletal modified maleimido terminal benzoxazine monomer (MI-BZ) was prepared using carbazole pendent aromatic diamine and maleimido phenol with paraformaldehyde through Mannich condensation reaction. The synthesized benzoxazine monomer was characterized and structurally confirmed by FT-IR and NMR studies. Polybenzoxazine-cyanate ester (PBZ/CE) hybrid blend was prepared via co-curing of cyanate ester (methylene diisocyanate (MDE)) with benzoxazine. The obtained hybrid blend showed greater thermal stability and excellent flame retardant property. The rise in the glass transition temperature of the PBZ/CE hybrid blendis considerably owing to the flexible nature of cyanate skeleton molecules. The formation of cross-linked triazine network caused by the copolymerization of CE with the benzoxazine matrices increased the thermal stability. The PBZ/CE system exhibited low dielectric constant due to the complete dispersion of the cyanate ester onto the PBZ matrix. The photoluminescence study confirms the successful formation of hybrid network of benzoxazine matrix with cyanate ester resin. The hybrid blending of PBZ and cyanate ester displayed lower water absorption behavior than that of the neat PBZ. The homogeneous surface morphology of hybrid blend was also evidenced from SEM images.

Keywords: Benzoxazine, cyanate ester, hybrid blend, thermal stability, dielectric constant, morphology.

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Track – IV (S&H)

ICRISET/T4006

MULTI-WALLED CARBON NANOTUBE REINFORCED CARDONAL PENDENT THIOPHENYL END CAPPED IMINE SKELETAL POLYBENZOXAZINE (MWCNT/PBZ) NANOCOMPOSITES FROM CASHEWNUT SHELL LIQUID

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ABSTRACT:

A novel cardanol pendent thiophenyl end capped imine skeletal polybenzoxazine/MWCNT (MWCNT/PBZ) nano composites were designed and developed via thermal polymerization. The benzoxazine monomer was obtained from cardanol pendant aromatic diimine and thio-phenyl amine which then undergoes polymerization to form polybenzoxazine nano composites reinforced with varying percentages of MWCNT. The synthesized PBZ nano composites were characterized by FT-IR, thermo gravimetry, wide angle x-ray diffraction (WAXD) and transmission electron microscopy. The PBZ nano composites have shown high thermal stability, glass transition temperature (T_g) and low dielectric constant. The enhancement in the glass transition temperature and improved thermal stability which could be afforded by the restrained motion of polymeric chain, caused from nano reinforcement effect of MWCNT. The reduction in the low dielectric constant is due to the free movement of polymer chains. The homogeneous morphology of the nano composites caused from the good interfacial interaction between the embedded MWCNT particles and PBZ nano composites as evidenced by SEM and AFM images.

Keywords: Cashewnut waste, benzoxazine, MWCNT, thermal polymerization, polybenzoxazine, nanocomposites.

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Track – IV (S&H)

THE EFFECT OF BINARY SOLVENT INTERAVTION ON Co^{III} (tn) $_2$Cl (L) $^{2+}$WITH VISIBLE-LIGHT IRRADIATED TITANIA PHOTOCATALYST

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ABSTRACT:

Light assimilation by nanomaterial (nm) titanium dioxide may be followed by interfacial electron transfer (IFET) between $Co^{III}(tn)_2Cl(L)^{2+}$and binary solvent mixtures (water-Methanol/1,4-dioxane). UV irradiation (λ_{max} = 254 nm) of $Co^{III}(tn)_2Cl(L)^{2+}$ (where L = $RC_6H_4NH_2$, R = *p-F* and *p*-CH_3)   in (i) water/ methanol and 1,4-dioxane mixtures (5, 10, 15, 20, 25, and 30% (v/v) organic co-solvent) in presence of nm-TiO_2 was found to produce cobalt(II) species; In this the scheme of accretion of $Co^{III}(tn)_2Cl(L)^{2+}$ at the active surface is attainable by the addition of organic co solvent and the interfacial charge transfer is efficient at nm- TiO_2/Co^{III} and it was generated by photo reduction probed by HRTEM, SEM-EDAX and X-Ray mapping analyses. Accompanying the adsorption and ensuing photo reduction the deposition/disbanding balance of Co^{III} (tn) $_2$Cl (L)$^{2+}$ ion and Co^{II}_{aq} provided the possibility of recurring process in solvent modified medium. An convolution on binary solvent modified $\Phi_{Co(II)}$ in terms of correlation analyses using solvent empirical parameters ε_r, Y, E_T^N, DN^N, α, β and π^* provides a model to understand solvent medium involvement. Surface morphologies prove the effectual scavenging by nm-TiO_2particles in the photo reduction of $Co^{III} \rightarrow Co^{II}$ in binary solvent mixtures.

Keywords: Charge transfer, Photo reduction, Solvation

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Track – IV (S&H)

ANION-RESPONSIVE UREA TACKED POLYMER GELS FOR THE DETECTION OF FLUORIDE ION

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ABSTRACT:

Stimuli-responsive polymer gels that can change their volumes drastically in response to various external physical and chemical stimuli have been of much interest due to various applications for actuators, drug delivery and micro fluidic devices. Among them, the stimuli-responsive polymer gels to specific chemical substances have been much studied due to application of molecular recognitions for material sciences. Thus, the guest molecules as the external stimuli have been still limited owing to difficulty in designing host–guest systems with high affinity in water. This prompted us to design novel anion-responsive polymer gels performed in non-polar media by incorporation of anion receptors into the lipophilic polymer chain. Complexation of specific anions with the receptors should enforce free counter cations to entrap in the inside of the polymer gels, which induces osmotic pressure and electrostatic repulsion to expand the gel. Non-polar media should allow us to use hydrogen bonds between the anion receptors and the target anions, which might increase binding affinity compared to that in water. Thus, anion-responsive polymer gels were prepared by incorporation of urea into poly (octadecyl acrylate) gels, and the colors and volumes were changed selectively in the presence of fluoride by complexation in THF as given in fig 1. Hence, they should be highly useful in an anion detecting and removing technology in prevention of pollution.

Keywords: Anion-responsive polymer gels,anion detecting and removing technology.

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Track – IV (S&H)

ICRISET/T4009

BIO FARMING BY GREEN CHEMISTRY TECHNIQUES FOR HUMAN AND ENVIRONMENTAL PROTECTION

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ABSTRACT:

For many decades farming is facing a huge degradation of production of crops. To solve it chemicals are introduced but chemical fertilizers and pesticides had given heavy infertility to the soil in which farmers could not farm the land for the next harvest. Green chemistry gives environmental and economical safe chemicals so that farmers can give high production, as well as use lesser money to invest in their farming. Bio-farming is an easier way to produce crops at a higher rate and these only needs natural methods to do so. This is completely under the 12 principles of green chemistry could boost green chemistry to human mankind.

The basic chemical for farming is nitrogen, ammonia, urea, etc instead of synthetic production; this could be obtained naturally too. And with modern technology, we can preserve them and use it for our needful.

Example, to kill pesticides, turmeric and urea are mixed in water solution and with few ml of alcohol (to dissolve) we can use a sprayer to kill it, and to make the soil fertile , sowing leguminous plant and decomposing it would give nitrogen to the soil which can give a better solution for farming. Secondly, fuel for machines for farming makes to spend a lot of money so; we can manufacture machines with solar energy as a fuel to it.

In this method, the farmer has to make a bit of investment in the initial period and making the soil fertile could take time but later when soil naturally becomes fertile, could give farmers a higher production with the help of green chemistry.

ICRISET/T4010

A STUDY ON THE COST FLOW PROBLEM

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ABSTRACT:

In optimization theory, maximum flow problems involve finding a feasible flow through a flow network that obtains the maximum possible flow rate. The maximum flow problem can be seen as a special case of more complex network flow problems, such as the circulation problem. The maximum value of an s-t flow is equal to the minimum capacity of an s-t cut in the network, as stated in the maximum-flow minimum-cut theorem. In this paper, I tried to give a deep idea on minimum cut and maximum flow problems with examples. The well-known algorithm of Ford-Fulkerson was discussed and finally concluded with its real application plac

Keywords: Decision making, Minimum-cost flow, Maximum flow, Networking, Ford-Fulkerson algorithm.

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Track – IV (S&H)

ASSESSMENT OF SURFACE WATER QUALITY BY USING MULTIVARIATE STATISTICAL TECHNIQUES OF KOLAVAI LAKE OF KANCHIPURAM DISTRICT, INDIA

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ABSTRACT:

Multivariate statistical methods such as Principal component analysis (PCA), and cluster analysis (CA) were used to characterize spatial variations and to find out the pollution source of 20 sites of Kolavai Lake in Chengalpattu, Tamilnadu, India. Sampling events were conducted during the period of March-2012 to December-2012. The 16 physicochemical water quality parameters were used to analyze the collected water samples. To interpret the degree of association between two variables Pearson correlation coefficient was executed and it has a value between +1 and -1. PCA analysis yielded four principal components with Eigen values ≥ 1 accounting for 34.02 %, 33.15 %, 12.53%, and 12.22 % of the total variance respectively. It revealed that variations in water quality parameters concentration are mainly identified with agricultural, industrial, and domestic wastes. The CA showed the formation of three clusters based on the water quality variation at different locations and were classified into high, moderate, and least polluted sites. Therefore this lake needs some effective measures to enhance the quality of water.

Keywords: Water quality, Kolavai Lake, Principal component analysis, Cluster analysis.

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Track – IV (S&H)

EFFECT OF L-VALINE ON POTASSIUM HYDROGEN OXALATE SINGLE CRYSTAL

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ABSTRACT:

The present systematic work is aimed to investigate the inclusion of L-Valine on the characteristics of Potassium Hydrogen Oxalate (KHO) single crystal to highlight its utmost liability in the design of nonlinear optical (NLO) device applications. The L-Valine doped Potassium Hydrogen Oxalate (LVKHO) single crystals grown by slow evaporation solution growth technique at room temperature. The grown crystals are characterized by Single Crystal X – ray diffraction (SXRD) analysis to determine its structural parameters. Fourier Transform Infrared (FTIR) analysis has been performed to confirm the presence of various functional groups. Ultraviolet – Visible – Near Infrared (UV –Vis – NIR) analysis has been carried out within the range 190 nm – 1100 nm to examine the optical transparency of the crystal. Thermo-gravimetric – Differential Thermal analysis (TGA-DTA) analysis has been imposed to evaluate the melting point of the grown crystal and the Kurtz – Perry test has been employed to ascertain the enhancement of Second Harmonic Generation (SHG) efficiency of the grown crystal.

Keywords: Growth from solutions; Inorganic compounds; Organic compounds; nonlinear optical materials

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Track – IV (S&H)

APPLICATION OF HYDRA HEXAGONS IN COMMUNICATION NETWORKS

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ABSTRACT:

Hexagons are used to a high satisfaction in our daily life as it not only guarantees efficiency but also pleasing aesthetics. Even nature has considered hexagons as fundamental units of a great number of its structures. These polygons are highly compact together when as a unit and possess a number of unique features. They have excellent geometrics, being the most convenient symmetrical figures which lie between circles and polygons. These six sided polygons can form a strongly bound design and are more adept in allowing close packing leading to zero wastage of the space and resulting in maximum utility. This paper focuses on rows of Hexagons connected to one another through nodes. The upper end of one Hexagonal row is developed further by connecting it to edges which bridges with various other Hexagonal rows forming a Hydra hexagon with odd number of Tentacles. We introduce a new labeling known as "Unisum Labeling" to the Vertices and edges of these Hydra hexagons.

Keyword: Hexagons, Unisum labeling, Hydrahexagons, vertices, edges, nodes, Tentacles

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Track – IV (S&H)

COMPARISON OF UV SPECTROPHOTOMETRY AND HIGH LIQUID CHROMATOGRAPHY METHODS FOR THE DETERMINATION OF MIGLITOL IN TABLETS

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ABSTRACT:

Miglitol is an α -glucosidase inhibitor for the treatment of type II diabetes with diet, whose main function is to reduce postprandial glucose levels in patients and reduce the incidence of diabetic complications. UV spectrophotometric and reversed –phase high performance liquid chromatography (RP-HPLC) methods were developed for determination of Miglitol in the tablet dosage form. The UV spectrum recorded between 200-400 nm using methanol as solvent and the wavelength 241 nm was selected for the determination of Miglitol .RP-HPLC analysis was carried out using Agilent TCc18 (2) column and mobile phase composed of methanol and water (80:20v/v ,pH adjusted to 3.5 with orthophosphoric acid) at a flow rate of 1.0 ml/min. Parameters such as linearity ,precision, accuracy, recovery, specificity and ruggedness are studied as reported in the International Conference on Harmonization (ICH) guidelines. The developed methods illustrated excellent linearity (r^2>0.999) in the concentration range of 5-30μg/ml and 5-50μg/ml for UV spectrophotometric and HPLC methods, respectively. Precision (%R.S.D<1.50) and mean recoveries were found in the range of 99.63-100.45% for UV spectrophotometric method and 99.71-100.25%for HPLC method which shows accuracy of the methods. The developed methods were found to be reliable, simple, fast, accurate and successfully used for the quality control of Miglitol as a bulk drug and in pharmaceutical formulations.

Keywords: Method validation, quantitative analysis, Miglitol.

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Track – IV (S&H)

E-SUPER EDGE MAGIC LABELING ON SOME CLASSES OF GRAPHS

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ABSTRACT:

A graph G with p vertices and q edges, a bijection $\ell: V(G) \cup E(G) \rightarrow \{1,2,\dots.p+q\}$ is called edgemagic labeling of G if $\ell(u) + \ell(uv) + \ell(v) = k$, a constant for any edge uv of G.G is said to be E-super edge magic if $\ell(E(G)) = \{1,2,\dots q\}$.In this paper, we present some classes of graphs that admits E-super edge-magic labeling.

Keywords: Edge magic labeling, E-super edge magic labeling, E-super edge magic graphs.

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Track – IV (S&H)

CHARGE TRANSPORT BEHAVIOR OF H₂SO₄ TREATEDPOLY (3, 4-ETHYLENEDIOXYTHIOPHENE): POLY (STYRENE SULPHONSTE) THICK SAMPLE

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ABSTRACT:

Owing to unique electrical and optical properties of various organic and polymer materials that are used in various commercial applications such as light emitting diodes, field effect transistors, photovoltaics, sensors etc. Here, we discuss about various transport mechanisms for different conducting and insulating regimes and analyzed the electrical conductivity of Poly (3, 4-ethylenedioxythiophene): poly (styrene sulphonate) (PEDOT: PSS). Prominent increase in conductivity is achieved by acidic treatment of spin coated PEDOT: PSS thin films. The XRD sharp peaks on acidic treatment suggest for higher degree of crystallinity. The resistivity ratio $[\rho(4.2K)/\rho(300K)]$ of H₂SO₄ treated sample increase with decrease in temperature by $\sim 10^4$ showing improved charge transport behavior. The H₂SO₄ treated sample followed hopping conduction, obeying $R(T) \propto \exp T^{-1/3}$ with in the low T regime.

Key words: Electrical conductivity; conducting polymer; variable range hopping.

ICRISET/T4017

SYNTHESIS AND OPTIMIZATION OF 3D ANTENNA ARRAYS

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ABSTRACT:

This paper presents a design of 3D antenna arrays for a maximum performance in terms of DOA and SLL reduction. This paper illustrates how to design and optimize   3D non-uniform antenna arrays. The effective aperture was optimized with special attention to separability in a receive and transmit aperture. Some design criteria were presented with respect to point spread function. This design of 3D antenna arrays considers the optimization of aperture, element shadowing, DOA, SLL. In this case Binomial arrays were chosen as an element, redundancy in terms of direction was investigated. The estimation of single or limited number of targets is common application of MIMO Radars. Designing of 3D antenna arrays are especially increases imaging capabilities at different ranges. The synthesis process is carried out by using Social Group Optimization Algorithm (SGOA). Furthermore BSA, EFA were synthesized. Beam pattern were obtained for various number of elements such as 5,10,15,20. Further, a comparison of the performance of 3D non-uniform antenna arrays is provided with respect to the most conventional arrays.

Keywords: DOA, Aperture, Element shadowing, BSA, EFA.

ICRISET/T4018

Zn DOPED CdS NANOPARTICLES SYNTHESISED BY MICROWAVE ASSISTED DEPOSITION USING ANISOMELES MALABARICA LEAF EXTRACT

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ABSTRACT:

The synthesis of CdS nanoparticles has attained great attention due to its unique size dependent optical, catalytical and electrical properties. CdS nanoparticles are II-IV group semiconductor in nature with a wide band gap. Zn doped CdS nanoparticles are grown by using microwave-assisted technique. Nanoparticles obtained by this method were smooth, uniform, good adherent, brown yellowish in color where the brightness of the yellow color nature decreases with increasing Zn concentration. The elemental composition analysis confirmed that the nanoparticles comprises of Cd^{2+}, Zn^+. The present work, CdS nanoparticles were synthesized and mediated with Anisomelesmalabarica leaf extract, it plays important role of reducing agent. The synthesized Zn doped CdS nanoparticles were calcinated with 400°C. SEM images confirmed the surface uniformity of the CdS nanoparticles devoid of void or cracks covered the substrate well. The particle size also decreases with in increasing Zn concentration. X-ray diffraction (XRD) indicates the hexagonal structure without phase transition. The grain size decreases from 36.45 to 9.6 nm, lattice parameter also decreases. The nanoparticles showed reduction in the absorbance as Zn concentration. Four point probes revealed that the electrical resistivity increased while electrical conductivity decreases with increasing of Zn concentration. The other electrical properties such as sheet resistance increases, charge carrier mobility decreased from 0.777 to 0.0105 cm^2, charge carrier density increases to $3.95*10^{12} cm^{-3}$.

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Track – IV (S&H)

ADVANCEMENT OF AN ENERGY EFFICIENT AND ECO-FRIENDLY CATHODIC ELECTROCHEMICAL TREATMENT PROCESS FOR THE DEPOSITION OF ZINC-ZINC PHOSPHATE COMPOSITE COATINGS

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ABSTRACT:

Energy efficiency and eco-friendliness are the key issues in many surface treatment processes. The requirement of higher operating temperatures (90 to 95 °C) for phosphating baths is a major concern associated with the energy efficiency of the process. The use of sodium nitrite to accelerate the coating deposition, the use of Cr (VI) compounds to seal the pores of the phosphate coating and the disposal of the phosphating sludge are the major concerns associated with the eco-friendliness in phosphating operations. The conventional chromate or chromium phosphate conversion coatings on aluminium alloys are being phased out due to the toxicity and carcinogenic nature of Cr (VI) compounds used in these processes. In this perspective, the main objective of the present study is to explore cathodic electrochemical treatment as energy efficient and eco-friendly method to deposit zinc-zinc phosphate composite coatings on aluminium and steel and, to evaluate their characteristic properties and corrosion resistance. The findings of the study reveal that the methodology enables varying the proportions of zinc and zinc phosphate contents in the resultant composite coatings by suitably varying the applied current density, pH and treatment time. The zinc-zinc phosphate composite coatings formed on aluminium and steel can be used in automobile components as well as in other engineering applications. In spite of the initial establishment cost and small power consumption, the developed cathodic electrochemical treatment process is indeed a green chemistry approach.

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Track – IV (S&H)

CdS NANOPARTICLES: GREEN SYNTHESIS AND THEIR APPLICATIONS

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ABSTRACT:

Nano technology is a new trend in the science field with many valuable applications. It includes the synthesis and utilization of nanostructure materials ranging from 1 to 100 nm. Nano scale materials possess unique properties that are generally not seen in their bulk counter parts.. CdS nanoparticles have high photosensitivity that makes them suitable for optoelectronic devices and a number of biological applications .CdS widely used for diagnostic purposes and it's a tool for site-specific gene and drug delivery. This review is providing an overview of the green synthesis of CdS from different biological extracts such as plants, microbes and their potential applications

Keywords: Cadmium sulphide (CdS) nanoparticle, Green synthesis, Opto electronics, Photo catalyst, Antibacterial activity

ANALYSIS OF LIFETIME OF GLYCEROL CAPPED COPPER DOPED CADMIUM OXIDE NANOCRYSTALLITES FOR SENSING APPLICATION

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ABSTRACT:

In this study, cadmium oxide (CdO) and copper doped cadmium oxide (CdO: Cu) nano crystallites were synthesized using co-precipitation method. The synthesized nano crystallites were characterized by X-Ray diffraction (XRD) analysis, Field Emission Scanning Microscopy (FESEM), Energy Dispersive X-ray Spectroscopy (EDS), and Time resolved fluorescence measurements using Time Correlated Single Photon Counting (TCSPC) technique. The diffraction patterns showed cubic shaped particles with average size 54, 28 for CdO and Cu doped CdO nano crystallites. The surface morphologies and composition of elements in the samples were confirmed with SEM and EDS measurements. TCSPC measurements were done to calculate the lifetime of cadmium oxide samples. The present work demonstrates that Cu doped CdO nanocrystallites possess lifetime in range of pico seconds and can be used for sensing applications.

Keywords: Fluorescence; Lifetime; Fluorophore; TCSPC

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Track – IV (S&H)

CATALYTIC SYNTHESIS, MOLECULAR DOCKING WITH COX 1& II ENZYME, ADMET SCREENING AND IN VITRO ANTI-INFLAMMATORY ACTIVITY OF HYDRAZONE DERIVATIVES OF PIPERIDIN-4-ONE DERIVATIVES

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Abstract

A series of hydrazone derivatives derived from the reaction 3, 3-Disubstituted-2, 6-diaryl piperidin-4-ones derivatives with various substituted hydrazides by using In-SnO$_2$ catalyst in ethanol at reflux conditions. Synthesized hydrazone derivatives are structurally confirmed by spectral (IR, ^{1}H &^{13}C NMR) and elemental analysis and screened for their in-vitro anti-inflammatory activity using HRBC method and found that most of the compound were potential anti-inflammatory drug. The obtained in vitro results were compared with the molecular docking, ADMET, QSAR and bioactivity study results performed for them and identified that the recorded in silico binding affinities were observed in good correlation with the in vitro anti-inflammatory results. The Molecular docking analysis had unveiled the strong hydrogen bonding interactions of synthesized ligands with amino acid residue of protein COX 2(PDB ID: 4PH9) COX 1(PDB ID: 1EQG) enzyme and plays an effective role in its inhibition. The present green protocol has advantages such as novel products, energy sustainability, short reaction times, high yield of products, economic viability and recyclability of the catalyst.

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Track – IV (S&H)

A COMPARATIVE STUDY ON SOLUTION OF DUFFING EQUATION USING THE MODIFIED SIMPLE EQUATION AND JACOBI ELLIPTIC FUNCTION METHOD

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ABSTRACT:

Duffing equation is regarded as one of the most important differential equations because it appears in various kinds of physical and engineering problems. This paper seeks to present a comparative study on Solution of Duffing Equation by using the methods Modified Simple Equation Method and Jacobi elliptic function Method. First we can apply modified simple equation method to get an exact solution. And we may apply Jacobi elliptic function Method. Finally we compare and analyse the solutions.

Keywords: Modified simple equation method, exact solutions, Duffing equation, Jacobi elliptic functions, cubic Duffing oscillator equation

THIRD ORDER NONLINEAR OPTIAL PROPERTIES AND THEORITICAL STUDIES OF 2A5ClP4AB: AN ORGANIC NONLINEAR OPTICAL MATERIAL

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ABSTRACT:

Single crystals of 2-amino-5-chloropyridinium-4-amino benzoate were grown by solution growth Technique using methanol as solvent. The third order nonlinear optical behaviour of the title compound such as Nonlinear Refractive Index (n_2), Nonlinear Absorption Coefficient (β), Third Order NLO Susceptibility ($\chi^{(3)}$), Variation in Refractive Index (Δn) were calculated using Z-Scan Technique and they are found to be (n_2) = $1.6891 \times 10^{-6} cm^2/W$, ($\beta$) =$1.92 \times 10^{-5}$ cm/W, ($\chi^{(3)}$)= 2.11×10^{-7}esu, and $\Delta n = 0.131586$ respectively. Vickers micro hardness number of the title compound as a function of the applied load is estimated using Vicker's Micro hardness Test. These studies are analyzed to explore the third order nonlinear properties and also find the suitability of the title compound for NLO applications.

Keywords: Crystal growth; NLO; Z-Scan; Micro hardness; Third order Non linear property

ICRISET/T4025

AN OVERVIEW ON THE ECOTOXICOLOGY OF THE KORTALAIYAR RIVER, TAMILNADU, INDIA

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ABSTRACT:

In the present study, an attempt is made to rediscover the study area, Kortalaiyar River. Kortalaiyar River is one of the main sources of water in the Thiruvallur district and it is one of the three rivers that flow in the Chennai metropolitan.

A review is presented on the sedimentology, Geo-chemistry and the water -Chemistry of the river. An effort is made to include the various techniques and methods involved in the study of the sediment and water characteristics of the Kortalaiyar River along with the description of the materials and equipment used for analysis. The results of the various study is analyzed and compared using statistical data like Cluster analysis, ANNOVA and box plots. The contamination of the river is assessed using the data obtained from various research and concluded the presence of heavy metal contamination along with major and minor metals. The effect of the concentration of major metals and trace metals are also evaluated in the study.

Keywords: Kortalaiyar River, Cluster analysis, Contamination, Sedimentology, Geochemistry, Water Chemistry, Heavy Metals

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Track – IV (S&H)

ICRISET/T4026

MOLECULAR DOCKING STUDY OF MAIN PROTEASE WITH SOME OF THE APPROVED HIV ANTIVIRAL DRUGS

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ABSTRACT:

In this study SARS-COV-2 (Covid -19) main protease was docked with different HIV antiviral drug to determine whether these drugs can act against the virus. AutodockVina was used for the docking purpose in this work and docking scores (in kcal/mol) were used to find the efficiency of these drugs against the SARS-COV-2 virus. 10 different pdb of the SARS-COV-2 main protease (6lze, 6w63, 6WTT, 6XA4, 6XBG, 6XBH, 6XBI, 6XFN, 7BQY, 7C8U) were downloaded from rscb database. Ligand was removed from the pdb and native ligand position was used for docking studies. Discovery Studio 2020 Client and autodocktools-1.5.6 was used to prepare the protein and ligand for docking studies. 10 different HIV antiviral drug was downloaded from Zinc 15 website (ZINC2015928, ZINC3809192, ZINC3629271, ZINC3941829, ZINC40915440, ZINC100003902, ZINC13831130, ZINC137884, ZINC1543916, ZINC39906). The structure of the ligand was minimized using chem. draw software. 100 docking scores were obtained from the studies and the result showed that ZINC13831130 (Raltegravir) showed highest docking scores ranging from -7.7 to -9.4 kcal/mol for the 10 different configuration of the main protease. ZINC39906 (Zalcitabine) and ZINC137884 (Stavudine) showed least docking scores towards the main protease. The theoretical results (in silico studies) may be used to carry in-vivo and in-vitro studies of the drug towards the SARS-COV-2 virus.

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Track – IV (S&H)

ULTRASONIC DYEING OF SILK FABRIC WITH AQUEOUS EXTRACT OF TERMINIA ARJUNA

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ABSTRACT:

Conventionally the dyeing of natural dyes from plant materials was done by boiling which requires longer time, higher temperature and metallic mordant to get good color fastness. Use of metallic mordant for dyeing posed some cruel effect to ecosystem. This study explained a suitable technique for more efficient natural dyeing using suitable mordant to improve the color fastness of natural dyes on silk fabric. This study demonstrated ultrasonic cleaner as a technique of dyeing the colorant from a Terminaliaarjuna was dyed at different ultrasonic volume and time. Results show the highest percentage of dye absorbed to silk fabric using ultrasonic cleaner was produced at optimum condition of medium sonic volume in 80 minutes time. The utilization of ultrasonic cleaner was found to have significant improvement in the dyeing color of natural dyes to silk fabric with lower dyeing temperature compared to traditional method.

Keywords: Ultrasonic dyeing; Natural dye; terminaliaarjuna; Silk.

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Track – IV (S&H)

ICRISET/T4028

SYNTHESIS, CHARACTERIZATION AND THEIR APPLICATIONS OF ZnO NANOPLATES

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ABSTRACT:

ZnO nanoplates were synthesized via the calcination of zinc acetate along with orange peel powder at 500°C for 4 h. The prepared sample was characterized by X-ray diffraction (XRD), Fourier transform infrared (FT-IR), diffuse reflectance (DRS) UV-Visible absorption and photoluminescence (PL) spectroscopy. Morphology of the sample was examined by scanning electron microscopy (SEM) and transmission electron microscopy (TEM). Energy dispersive X-ray spectrum of the synthesized ZnO plates shows characteristic peaks of Zn and O only. The obtained results reveal that the synthesized sample is ZnO, which has hexagonal structure and plate-like morphology. The ZnO nanoplates showed enhanced photo catalytic activity against rhodamine B (RhB) under UV light irradiation within 60 min. In addition, theas-prepared ZnO nanoplates were also used for H9c2 cardiomyoblasts cells to find the activity against MTT.

CONFIGURATION OF LASER INDUCED DOWNWARDGROWING VAPOUR REGION IN AUTOGENOUS WELDINGOF AISI 316L STAINLESS STEEL JOINT USING PULSED Nd: YAG LASER

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ABSTRACT:

A 500 Watts PC controlled Nd: YAG laser beam with wavelength of 1.064μm was used to weld the autogenous butt joint of AISI 316L stainless steel sheets which is an extra-low carbon version of AISI 316 stainless steel that minimizes unsafe carbide precipitation due to welding. This paper briefed about the physics of laser - AISI 316 stainless steel dealings stage by stage including the formation of plasma at the probable regions in small hole during the laser welding. During the study of volumetric heat source model proposed by JaoHwaKuang et al, it found by an misfortune that the cone shaped vapour and melt regions near the bottom of the keyhole are looking slightly deviated from as proposed volumetric heat source model due to a downward expanding vapour region at the bottom. At the same time, increasing the vapour region at the foundation leads to loss of material by producing downward plasma that will cause the root concavity as a result. Therefore, it completed to classify and control the extension of vapour region at the bottom by optimizing the working parameters, mainly the input power.

Keywords: Laser Welding, Stainless Steel, Keyhole, Plasma, Vapour, Melt Flow

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Track – IV (S&H)

ICRISET/ T4030

CHARACTERISTIC AND PHOTO CATALYTIC PROPERTY OF ZnO NANOSTRUCTURES

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ABSTRACT:

The ZnO nanostructures were prepared by one-step thermal decomposition method by using zinc acetate as zinc source. The structure and average crystallite size of the samples was confirmed by X-ray diffraction (XRD) analysis. Fourier transform infrared (FTIR) spectra confirm the metal-oxygen bond and surface functional group of the samples. The scanning electron microscopy (SEM) and transmission electron microscopy (TEM) show that the morphology of ZnO changed with change in calcination temperature. Light absorption behavior and band gap of the samples were determined by diffuse reflectance UV visible spectroscopy (DRS UV-Vis). The prepared ZnO samples were utilized as photocatalyst for degradation of acid blue dye in water under ultraviolet light illumination. The acid blue photocatalytic degradation was monitored through UV-visible absorption spectroscopy. The ZnO nanorods show 95% degradation efficiency within 60 min of irradiation time.

Keywords: ZnO, photocatalyst, nanorods, acid blue.

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Track – IV (S&H)

ICRISET/T4031

STRUCTURAL AND OPTICAL STUDIES OF Cd DOPED PbS NANOPARTICALS SYNTHESISED BY CHEMICAL CO-PRECIPITATION METHOD

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ABSTRACT:

In this paper, the structural and optical studies of Lead sulphide nanoparticles with cadmium dopant synthesized by chemical co-precipitation method were studied. The X-ray diffraction studies confirm the structure of the samples with average crystallite size ranging from 18-25nm varying with Cd concentration. The morphological studies of the sample were carried out by Field emission scanning electron microscopy (FESEM). EDAX studies confirms the presence of Pb,S and Cd in the sample. Structural reconfirmation was done by Raman analysis. Band gap modification with the influence of Cd on PbS were reported.

Keywords: Lead sulphide, Cd, Structural properties, Optical properties

ICRISET/T4032

SYNTHESIS, GROWTH AND CHARACTERIZATION OF NONLINEAR OPTICAL CRYSTAL: 2-AMINO 5-CHLORO PYRIDINIUM L-TARTRATE

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ABSTRACT:

An Organic nonlinear optical material, 2-Amino-5-chloro pyridinium L-tartrate (2A5CPLTA) was successfully synthesized by slow evaporation solution technique (SEST) at room temperature using methanol as solvent. The synthesized material was initially subjected to powder X-Ray diffraction analysis in order to analyze the crystallinity of the sample. The FTIR analysis gave information about the modes of vibration in the various functional groups present in 2A5CPLTA. Photoluminescence studies revealed the luminescence intensities observed at the visible region range.

Keywords: Slow evaporation method, nonlinear optics, X-Ray diffraction

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Track – IV (S&H)

A NOVEL STUDY ON PARTICAL SIZE AND BAND GAP PROPERTY OF THE SILVER NANOPARTICLE PREPARED BY GREEN SYNTHESIS

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ABSTRACT:

In this report, band-gap and particle size of the silver nanoparticles prepared using flower extract of Thespesiapopulnea as reducing agent has been reported. Two different solvents viz., water and methanol has been used to prepare the flower extract in order to investigate the effect of base solvent in reducing agent on synthesis of silver nanoparticles. Two different concentrations of silver nitrate solution viz., 0.001M and 0.05M were used to synthesize silver nanoparticles along with 5 different concentrations of reducing agent (0.5, 1.0, 1.5, 2.0 and 2.5 mL). Absorption spectra of all 20 samples were recorded using UV-Vis spectrometer to determine the band gap and the particle size of the nanoparticles. Irrespective of solvent used to prepare the reducing agent, the band gap of the silver nanoparticles was found to be between 2.82 to 2.84 eV for 0.05M silver nitrate solution and between 3.02 to 3.05 eV for 0.001M. The size of the nanoparticles was determined empirically as well as through simulation using Mie plot v4.6. Absorption spectrum has been simulated for a range of wavelength with varying particle size. The peak position of the simulated pattern has been compared with that of experimental pattern and the one which is in good agreement has been chosen to determine the size of the nanoparticle. The size of the nanoparticle estimated empirically and obtained through simulation were found to be in good agreement. Size of the synthesized particles was found to be between 26 to 27 nm in samples with 0.05M concentration and 25 to 26nm for 0.001M concentration of silver nitrate solution. With increase in the size of the particle, the band gap of silver nanoparticles decreases as number of atoms in a single nanoparticle increase thus large number of bands are formed and there will be a decrease in band gap. It was observed that size of nanoparticles is independent of concentration of the flower extract and independent of base solvent (i.e. water or methanol) used in the preparation of reducing agent or flower extract. The concentration of the silver nitrate plays an important role in determining the size of the nanoparticle and thus affecting the band gap of the nanoparticles.

Key words: Band gap, silver nanoparticle, Thespesiapopulnea, particle size

THE COVID-19 PANDEMIC; HOW TO PREVENT AND CONTROL OF THE SPREAD OFINFECTIOUS VIRUS BY USING TRADITIONAL MEDICINAL INTERVENTION

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ABSTRACT:

Currently, there is no systematic treatment; drug, and vaccine, only supportive preventive measures have been implemented for COVID-19 disease. In this situation, How to improve our immune system protects our body against the virus, take vegetable and fruits, nutrient-rich foods, medicinal value plants, tropical and subtropical herbals plants, etc. Our body immune system improves through the consumption of natural immunity-boosters like *Curcuma longa, Zingiberofficinale, Allium sativum, Piper nigrum, Cuminumcyminum,* and also medicinal plants like *Azadirachtaindica* leaves, and *Ocimumtenuiflorum* leaves, etc. Nevertheless, prevention is better than cure, from the point of view that we go for preventive actions against COVID-19 outbreak through the utilization of healthy nutritious food and medicinal plants. In the present study, it reveals traditional nutrition intervention also supports effectively with the existing treatment protocols.

Keywords: COVID-19, Immune system, Medicinal plants

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Track – IV (S&H)

ICRISET/T4035

CARDANOL PENDENT AROMATIC DIAMINE END CAPPED IMINE SKELETAL BORON PHOSPHATE REINFORCED POLOYIMIDE (BPO₄ /PI) NANO COMPOSITES FROM CASHEW NUT WASTES

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ABSTRACT:

A novel cardinal pendant aromatic diamine end capped imine skeletal boron phosphate/polyimide (BPO₄/PI) nano composite was designed and developed via thermal imidization and poly condensation reactions. The polyimide monomer is prepared from aromatic diamine and pyromelliticdianhydride, which then undergoes polymerization to form polyimide nano composites reinforced with varying percentages of BPO₄ .The synthesized PI nano composites were characterized by ATR-FTIR. The PI nano composites have shown high thermal stability and good chemical resistance. The incorporated BPO₄ particles give flame retardancy. This is examined by limiting oxygen index (LOI) measurements. Proton conductivity of the polyimide films was measured by four probe technique. The morphology of PI nanocomposites is evidenced by SEM and AFM images.

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Track – IV (S&H)

NANOSILICA REINFORCED IMINE SKELETAL ARENE BASED POLYBENZOXAZINE (nSiO$_2$/PBZ) NANO COMPOSITES

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ABSTRACT:

A series of nanosilica reinforced polybenzoxazine (nSiO$_2$/PBZ) were developed from phenyl pendant pyridine core imines via Mannich reaction. The final structure of the products developed was characterized via FTIR and their optical behavior by UV-Visible spectroscopic techniques. From the DSC measurements the curing behavior was analyzed, spectra showed a single glass transition temperature (Tg) for PBZ and their nanocomposites have high glass transition temperature than the neat PBZ. The fire retardancy was also increased with raise in concentration of nanosilica content and it was confirmed by TGA. The UV-Vis absorption bands at the region of 305–380 nm and from the Photoluminescence analysis, the fluorescent emissions were observed in the wavelength range of 340–570 nm. The successful developments of nanocomposites were conformed from the characteristic peaks corresponding to added nSiO$_2$. The reports from thermal and optical properties show that the nanosilica reinforced polybenzoxazinenanocomposites can be employed in the of advanced composite materials field.

Keywords: Imine, nanosilica, benzoxazine, nanocomposites and thermal stability.

ICRISET/T4037

ELECTROCHEMICAL SENSING OF DOPAMINE USING POLYMERIZED COBALT (II) SCHIFF BASE COMPLEX MODIFIED GCE

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ABSTRACT:

Dopamine (DA) is important catecholamine family small organic molecule and neurotransmitter. DA mostly presents in the brain and central nervous system of mammals and it transmits neuro signals. It also plays a vital role in the learning and memory activities. High concentration level of DA in the mammals can be a biomarker for various central nervous system-related diseases, like anorexia, schizophrenia and Parkinson's disease. Due to the health factors there is a necessity to determine DA in real samples for the clinical purposes. DA can be determining by different methods like chromatography (HPLC), Spectrophotometry, including electrochemical methods, enzymatic methods and photo-electrochemical sensor. However the electrochemical method is widely used for the accurate determination of DA. Last few decades modified electrodes have been mostly used for selective and sensitive detection of DA, since the modified electrodes exhibits better detection limits than the bare electrodes. Due to this high sensitivity more materials were used for the modification process, like metal, metal oxides, conducting polymers, nanoparticles, composites of different metal oxides with polymers and metal complexes, etc., but there are very few reports in the usage of metal complexes for the sensing of DA. In our present work we employed cobalt (II) Schiff base complex modified GCE for the sensing of DA. The different oxidation states of cobalt metal ion plays vital role in the determination process. Cobalt form stable complexes with two different oxidation states so that it has good redox nature and it enhance the detection activity of this method. This Cobalt (II) Schiff base complex shows good detection limit when compare with other materials.

Keywords: Cobalt (II) Schiff base complex, Dopamine, electro catalytic sensor, electrochemical polymerization.

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Track – IV (S&H)

PREPARATION OF NANO HYDROXYAPATITE (HAP)-GRAPHITIC CARBON NITRIDE (g-C$_3$N$_4$) COMPOSITE: A HETEROGENEOUS CATALYST FOR THE REMOVAL OF HEAVY METAL IONS, AND TOXIC DYES CONTAMINANTS FROM WATER

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ABSTRACT:

In this study, we have prepared a Nano Hydroxyapatite (HAP) -Graphitic Carbon Nitride (g-C$_3$N$_4$) composite by one pot synthesis through wet chemical route. The synthesised composites are characterised using various analytical techniques. Functional groups in the composite are identified using FTIR analysis. Structural and phase confirmation are carried out using X-Ray diffractometer. The morphological and shape analysis performed using SEM. The phase transformation of melamine amorphous calcium phosphate to g-C$_3$N$_4$/HAP is shown from TGA analysis. This analysis also confirmed the formation of HAP/g-C$_3$N$_4$composite. Thus, prepared composite is used for photocatalytic dye degradation under visible sunlight for Rhodamine-B dye and further the composite is also evaluated for the removal of Cr (VI) ions from solutions. The utility of the above composite is due to the excellent adsorption property offered by HAP besides the presence of g-C$_3$N$_4$ in the composite, which is enhancing the photocatalytic behavior and adsorption capacity due to the large surface area.

Keywords: HAP, g-C$_3$N$_4$, Photocatalyst, Metal ion Removal

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Track – IV (S&H)

STRUCTURAL AND OPTICAL PROPERTIES OF TITANIUM SULPHIDE THIN FILM DEPOSITED BY SILAR METHOD

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ABSTRACT:

Recently, nanostructured thin films have attracted the research community all over the world, as they shows impending applications in semiconductor industry, predominantly in fabrication of optoelectronic devices especially, in case of chalcopyrite hetrojunction solar cells, it acts as a buffer layer. The films are also used as Photoconductors, Photo-resistors and large screen liquid crystal display. In this present investigation Successive Ionic Layer Adsorption and Reaction (SILAR) technique was used to grow double layer structures of pure Titanium Sulphide and doped Titanium Sulphide is deposited on the amorphous glass substrate. The growth of these thin films by the SILAR technique from diluted aqueous solutions was achieved, ionic layer by ionic layer, at room temperature and normal pressure. These synthesized thin films are subjected to various characterized like X-ray diffraction (XRD), Profilometer, FTIR, UV–VIS spectroscopic techniques and Scanning Electron Microscopy (SEM). The crystalline nature of the nanofilms is confirmed from X-Ray diffraction Analysis having and it has Hexagonal structure. The average particle size is found to be 16.88 nm calculated using Scherer formula. The strain $(\varepsilon) = 0.9503$, and dislocation density $(\delta) = 3.5061 \times 10^{15}$ m^{-2}of the materials are also calculated from XRD data. Roughness of the grown thin films is measured by using Profilometer. The functional group of the sample can be conformed from Fourier Transform Infrared spectroscopy (FTIR). The optical properties of the fabricated thin films like refractive index n (λ) and the energy band gap $(Eg) = 3.915$ eV at the edge of absorption band using the Tauc relation from the UV-VIS spectroscopic data. The surface properties of these thin films have been investigated with scanning electron microscopy (SEM) measurements. The thicknesses of grown films (d) are calculated by using Swanepoel method.

Key words: SILAR method, energy band gap, XRD, solar cell etc

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Track – IV (S&H)

CRYSTAL STRUCTURE ANALYSIS AND STRUCTURAL DETERMINATION OF SELENIUM DERIVATIVES

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ABSTRACT:

Selenium containing compounds, like 1,2,3-selenadiazoles are of increasing interest because of their chemical properties and biological applications such as anti-fungal, anti-bacterial, antimicrobial, anti-cancer and insecticidal activities. In view of the growing importance of selenium containing compounds, the crystal structure of three compounds has been carried out.

The selenadiazol ring is planar. The dihedral angle between the selenadiazol ring and the attached phenyl ring. The propanoate group assumes an extended conformation which can be seen from the torsion angle. The methoxy group lies in the plane of the phenyl ring and twisted away with propanate group & phenyl ring, respectively. The molecules are stabilized by C—H···N and C—H···p types of intermolecular interactions in addition to van der Waals forces.

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Track – IV (S&H)

INFLUENCE OF CADMIUM ACETATE FOR THE GROWTH CONTROL AND SURFACE MODIFICATION INɤ-GLYCINE SINGLE CRYSTAL FOR THE ENHANCED OPTOELECTRONIC APPLICATIONS

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ABSTRACT:

Single crystal of ɤ-glycine, an organic nonlinear optical material has been grown by solvent evaporation technique from the aqueous solutions of glycine and cadmium acetate at room temperature. The different morphology of cadmium acetate doped with ɤ-glycine single crystals was noticed and the effect of cadmium acetate doping on the growth, optical, dielectric and hardness properties has been investigated. The phase of glycine is confirmed by single crystal X-ray diffraction. The crystal is in hexagonal system with non-centrosymmetric space group P31. The FTIR spectral analysis shows the functional group vibration of ɤ-phase glycine. UV–vis–NIR analysis reveals that the crystal has good optical transparency window in the entire visible and IR region. UV cut-off wavelength is at ~350 nm. Thermal analysis shows the thermal stability, phase transition of the grown crystals and its melting point. The NLO property of the grown crystals was confirmed by SHG studies Second harmonic generation and third harmonic generation. The result shows that the efficiency of the crystal is about 1.7 times than KDP. It was found that addition of cadmium acetate in pure glycine improves the optoelectronic applications.

Keywords: Cadmium Acetate, SHG, Third harmonic Generation, optoelectronic applications

LINEAR AND NONLINEAR OPTICAL PROPERTIES OF ORGANIC NONLINEAR OPTICAL MATERIAL: Morpholinium 2-chloro-4-nitrobenzoate

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ABSTRACT:

We report on the investigations performed on Morpholinium 2-chloro-4-nitrobenzoate (M2C4N), a second order nonlinear optical (NLO) material, which has been proved to crystallize into orthorhombic crystal structure with non-centrosymmetric space group of $P2_12_12_1$. The molecular packing exhibited 2_1 helical chain arrangements when viewed along c-axis. The synthesized powder was studied for its composition, crystalline phase, NLO efficiency and phase matchability. The laser damage studies performed for M2C4N using single shot measurements exhibited that the crystal could withstand the laser fluence of about $4.72 GW/cm^2$ along (010) plane. Thus, by considering the crucial factors such higher optical quality, phasematchability and better laser damage threshold values, it could be stated that M2C4N could be a suitable candidate for NLO device applications.

ICRISET/T4043

GROWTH AND CHARACTERIZATION OF 2-Amino-5-Chlorpyridinium 4-Aminobenzoate

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ABSTRACT:

Optically transparent good quality single crystals of 2-amino-5-chloropyridinium-4-amino benzoate (2A5CP4AB) were grown by Isothermal solvent evaporation Technique using methanol as solvent. The single crystal XRD study reveals that 2A5ClP4AB belongs to monoclinic crystal system having centrosymmetric space group P21/n. The UV-visible spectral study indicates absorption coefficients and the optical band gap was determined by using the Tauc's Plot and it found to be about 3.53 eV. The pphotoluminescence (PL) spectrum of 2A5CP4AB crystal recorded in the range from 300 to 550 nm. The photoluminescence properties of the title compound show the optical transmittance and emission behaviour of the compound.

Keywords: Crystal growth; XRD; UV-Vis; Photoluminescence; NLO

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Track – IV (S&H)

CRYSTAL GROWTH, STRUCTURE, PHYSICAL ANDCOMPUTATIONAL STUDIES ON
Morpholin-4-Ium P-Amino benzoate

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ABSTRACT:

In recent years much attention has been devoted to materials with high second order nonlinearities owing to their potential use in numerous modern research fields [1].Morpholin-4-ium p-aminobenzoate (MPABA) was synthesized by the addition of morpholine (C_4H_9NO) (GR, Merck) with p-aminobenzoic acid ($C_7H_7NO_2$) (GR, Aldrich) and the final product was purified by recrystallization process several times. A saturated solution of MPABA was used for the growth of MPABA single crystal by using the slow cooling technique, in a controlled temperature bath equipped with a Programmable Eurotherm Temperature Controller (Model:3216) having a controlled accuracy ($\pm0.01°C$). The structure was solved by Direct Methods using SHELXS97 and refinement was carried out by full-matrix least-squares technique using SHELXL97 [2]. The ORTEP diagram is shown in Fig. 1. The asymmetric unit of the MPABA contains one protanated morpholine ring and one benzoate ion as adduct. In this asymmetric unit, N_2—$H_3N\cdots O_1$ intramolecular hydrogen bond connects the two ions and this basis units are interconnected by another two N— H$\cdots$O intermolecular hydrogen bonds and weak interactions, which stabilize the crystal structure [3].

The density of MPABA crystal was determined experimentally by floatation technique. It was found to be 1.318 $g/cm^3$and compared well with theoretical density ($\rho_t = 1.313\ g/cm^3$).The cutoff wavelength of MPABA crystal was found to be 327 nm and this absorption was due to the promotion of an electron from a 'non-bonding' (lone-pair) n orbital to an 'antibonding' π orbital designated as $\pi^*(n\rightarrow\pi^*)$ and no characteristic absorption was observed in the entire visible region. The indexed powder X-ray diffraction pattern was compared with the XRD pattern simulated by the Mercury software and was found to agree with each other.

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By employing the Kurtz powder technique, the obtained SHG efficiency of MPABA powder was calculated as 1.49 and 11.45 times greater than that of the urea and KDP respectively.

Quantum chemical calculations of MPABA were carried out using the GAUSSIAN 03W program package with B3LYP/6-31G (d) basis set. The calculated values of dipole moment (μ) and first order polarizability(β_o) were calculated as 1.209 D, and $9.214\times10^{-30}\,cm^5.esu^{-1}$ respectively while that for urea they were 1.9846 D, $0.8461\times10^{-30}\,cm^5.esu^{-1}$ respectively.

Thus the first hyper polarizability of MPABA were comparatively 10.890 times greater than that of urea. The molecular electrostatic potential (ESP) (Fig.2) clearly shows that the negative and positive potential sites are around the electronegative (Oxygen & Nitrogen) atoms and the hydrogen atoms respectively, while the remaining species are surrounded by zero potential.

ICRISET/T4045

SIGNIFICANCE OF Cd^{2+} ION DOPING IN ZnHPO₄ SINGLE CRYSTALS FOR THE GROWTH AND NLO PROPERTIES, PREPARED IN SILICA GEL MEDIUM UTILIZING SINGLE DIFFUSION TECHNIQUE

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ABSTRACT:

By using silica gel as a medium, the inorganic crystals of Cadmium doped Zinc Hydrogen Phosphate was successfully grown on single diffusion technique. The crystals were grown for different gel densities and various concentrations of orthoposphoric acid. Nonlinear optics has been focused in recent times due to their new phenomena, new theoretical insights, new materials and devices. Mostly nonlinear optics researches are mainly focused on energy materials exhibiting second and third order harmonics generations. The effect of various growth parameters on the nucleation rate of these crystals was studied. TG/DTA analysis, Energy dispersive X-ray analysis (EDAX), Laser Raman spectroscopy, Photoluminescence and Non Linear Optical studies (NLO) have been made to find the stoichiometric composition of the crystals and its structure. The presence of various functional groups was confirmed from Laser Raman spectra and the effect of composition of the crystals on the spectra was identified. Photoluminescence spectrophotometric experiments were carried out to study the optical properties of the grown crystals. Thermal analysis is undertaken to study the thermal stability of the grown crystals. The chemical composition of Cadmium doped zinc hydrogen phosphate crystal was determined by EDAX analyses. The NLO studies discloses that they are capable of realizing green light and their second harmonic efficiency is 1.2 times greater than that of KDP. The optical damage studies have also been carried out on the grown crystals.

Keywords: Non linear optical crystal, Cadmium doped Zinc Hydrogen Phosphate, Diffusion technique, Laser Damage Threshold

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Track – IV (S&H)

ICRISET/T4046

SOLITON INTERACTION IN EXTERNAL SYMMETRIC POTENTIAL

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ABSTRACT:

In this paper, with the aid of Darboux transformation, soliton dynamics in the presence of external potential have been investigated. We derive the lax pair of a SPNLS equation using AKNS method. Through choosing different parameters, the influences of them on soliton interactions are discussed. To reveal the soliton features with symmetric potential, graphical illustration for two different cases such as with and without presence of symmetric potentials are discussed. Results are beneficial to the effective transmission of information in the optical system.

Keywords: Solitons, Symmetric Potential nonlinear Scrodinger equation, External Potential, Darbaux Transformation

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Track – IV (S&H)

NOVEL SYNTHESIS AND CHARACTERIZATION OF SPHERICAL SHAPED Ε-FE$_2$O$_3$ NANOPARTICLES

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ABSTRACT:

Spherical shaped ε-Fe$_2$O$_3$ nanoparticles have been successfully synthesized by adopting a simple solvothermal method and characterized structurally, optically and electrically by adopting the available methods like X-ray powder diffraction analysis, transmission electron microscopic analysis, UV-Vis-NIR spectral analysis and electrical measurements. Results obtained in the present study indicate that the method adopted is an effective one for preparing the ε-Fe$_2$O$_3$ nanoparticles with good purity, homogeneity, optical, electrical properties. The average crystallite size, coercivity and remanance obtained are 24 nm, 320.46 Oe and 1.510 emu/g respectively.

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Track – IV (S&H)

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SYNTHESIS OF ZRO₂ NANAPORTICE BASED CARBON PASTE ELECTRODE FOR THE ELECTROCHEMICAL INVESTIGATION OF PARACETAMOL

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ABSTRACT:

Synthesis of zirconium oxide nanoparticles (ZrO_2) (ZNPs) through microwave assisted solution combustion technique as well as their structural and morphological characterization using XRD, SEM and TEM forms the central theme of this work. Along with structural and morphological characterization, an electrochemical detection of paracetamol (PA) is described using ZNPs Modified Carbon Paste Electrode (ZMCPE). The XRD results confirm that particles are well crystallized in tetragonal phase with average particle size of 35 nm. From SEM it can be observed that, the materials formed is porous in nature and particles are seems to be uniform in size. HRTEM reveals that, the particles size in the order of 30-40nm this and the crystallinity was supported by SAED pattern of the ZNPs. These results are in agreement with the results obtained through XRD. ZNP was explored for Electrochemical detection and quantification of paracetamol (PA) was performed through cyclic voltammetric and differential pulse voltammetric method at different circumstances like concentration of the analyte, applied potentials and pH. The overpotential for oxidation of paracetamol is reduced, and the response of current improved significantly on the $ZrO_2NPs/MCPE$ (ZMCPE) in assessment through that of BCPE. The Linear calibration curve is found over the range 10 μM to 60 μM, and the LOD is found to be 0.68 µm. The ZMCPE enabled the immediate detection of serotonin, paracetamol and dopamine and with good reproducibility.

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Track – IV (S&H)

EFFECT OF SiO₂ NANO PARTICLES ON THEPROTON CONDUCTING KH₂PO₄ COMPSITE SOLID ELECTROLYTE

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ABSTRACT:

In the present work the effect of SiO2 nanoparticles on the electrical properties of KH_2PO_4/SiO_2 composites have been studied. X ray patterns reveal the composite nature of the system. To confirm ionic conduction, we have used Wagner's polarization method. Complex impedance spectroscopy has been used to measure the a.c. conductivity at different temperatures. In pure KH_2PO_4 the conductivity is influenced by the hopping of the proton through defects while in KH_2PO_4/SiO_2 composite systems, the conductivity is governed by the defects at the interface, generated due to adsorption of salt at the silica surface. The hydrophilic silica accelerates the conductivity at the temperature nearly below the phase transition. The transition temperature of composite was found to be decreased in comparison to the pure KDP.

Keywords: Composite, Phase transition, Complex impedance, Proton hopping, Ionic conduction.

ICRISET/T4050

GROWTH AND CHARACTERIZATION OF γ-GLYCINE SINGLE CRYSTALS FROM LANTHANUM BROMIDE FOR OPTOELECTRONIC APPLICATIONS

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ABSTRACT:

Single crystal of gamma-glycine, an organic nonlinear optical material has been grown by solvent evaporation technique from the aqueous solutions of glycine and Lanthanum Bromide at ambient temperature for the first time. The gamma-phase of glycine is confirmed by single crystal X-ray diffraction. The crystal is in hexagonal system with non-centrosymmetric space group P31. The FTIR spectral analysis shows the functional group vibration of gamma-phase glycine. UV-vis-NIR analysis reveals that the crystal has good optical transparency window in the entire visible and IR region. UV cut-off wavelength is at similar to 350 nm. Thermal analysis shows the thermal stability, phase transition of the grown crystals and its melting point. Second harmonic generation efficiency of the crystal is about 1.7 times that of KDP.

Keywords: Lanthanum Bromide, SHG, Third harmonic Generation, optoelectronic applications

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Track – IV (S&H)

ICRISET/T4051

ASSIMILATION OF NITRATE IONS FROM AQUEOUS ENVIRONS ONTO SURFACE MODIFIED BIOMATERIAL

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ABSTRACT:

Nitrate ions from various sources viz., fertilizers, pesticides, agricultural runoff and sewage wastewaters discharged into water bodies either directly or indirectly may lead to several ailments like methemoglobinemia (Blue baby syndrome) and death of aquatic plants/animals. The present study investigates the utilization of *Eleocarpustectorius* seed (ETS), a plant waste for the removal of nitrate ions. Excess alkaline nature of ETS is minimized, by treating with 0.1N HCl and characterized using BET/BJH, FTIR and SEM / EDAX analyses. Batch Equilibration studies are performed to examine the effects of particle size / dosage, contact time, initial anion concentrations/ agitation time interval, pH of the medium, temperature and co-anion. The results indicate 99.7% nitrate ions are chelated by treated ETS under optimized conditions of 0.18 mm particle size, 200 mg dosage, 10 mins agitation time, 100 mg/L initial nitrate concentration, pH 5 and room temperature. The generated experimental data are validated with Langmuir, Freundlich and Temkin Isotherm models wherein both Langmuir and Freundlich plots exhibited a better linear fit with correlation coefficient value nearness to unity supporting monolayer/multi layer sorption. Thermodynamic studies indicate the favourability, exothermicity and spontaneous nature of the system. Simulation of pseudo second-order kinetic model is evident from the sorption kinetics studies. The made observations imply that the chosen waste seeds possess excellent anion chelating capability.

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