SARANATHAN COLLEGE OF ENGINEERING
(Autonomous)
(Approved by AICTE, New Delhi)

3.2.1 Ecosystem for Innovation and Initiatives for creation and transfer of knowledge

(AY 2023-2024)

REPORT ON INTERNAL HACKATHON SIH 2023   Date: 27-09-2023

The Internal hackathon SIH 2023 was conducted to encourage the students and drive the spirit of competitive software and hardware projects among other enthusiasts. The internal hackathon SIH was conducted with the aim of letting the students to enhance new technical skills, team-building skills and to feel a sense of accomplishment.

For the SIH 2023, a total of 792 students registered as 132teams (76 software teams and 56 hardware teams) and the initial selection was done in two phases. Phase one screening was conducted in two streams as hardware on 19-09-2023 and software on 20-09-2023 and 21-09-2023. The screening was carried out by internal experts and out of 132 teams 73 teams (44 software teams and 29 hardware teams) were selected at the end of phase one.

The second phase of screening was conducted on 25-09-2023 and the projects were evaluated by internal jury members, external jury members and international software experts from USA and Dubai through online mode. In phase two 73 teams were shortlisted for uploading their ideas in SIH website for screening by SIH technical experts.

INTERNAL HACKATHON SIH 2023 LIST OF EVALUATORS

EXTERNAL EVALUATORS (SOFTWARE EDITION):

1) Mr. Balajilyer – Sr. Engineer, Google Cloud Architect, Microsoft, USA.
2) Mr. V.Rajesh Kumar – System Engineer in DXB (Dubai Airport).
3) Mr. N.Kamesh – Sr. Manager, Hexaware, Chennai.
4) Dr. P. Thiruvalar Selvan - Professor – SRM TRP Engineering ,Trichy.

INTERNAL EVALUATORS (SOFTWARE EDITION):

1) Dr. S.Ravimaran – Head AI&DS
2) Dr. V. Punitha – Head CSE
3) Dr. R. Thillaikarasi – Head IT
4) Dr. P D Sheba Kezia Malarchelvi - Professor .CSE
5) Prof. B. Rethina Kumar – Asst. Prof. CSE

EXTERNAL EVALUATORS HARDWARE:

1) Dr.Shriram K. Vasudevan, Lead technology evangelist, Intel Corporation(Asia Pacific and Japan)
2) Dr. S. Senthil Kumar, Associate Professor, Department of EEE, NIT Trichy.
3) Dr. R. Ramya, Assistant Professor, Department of EEE, SRM Deemed University, Chennai.
4) Dr. U. Srinivasulu Reddy, Associate Professor, Department of Computer Applications, NIT Trichy.

INTERNAL EVALUATORS HARDWARE:

1) Dr. C.Vennila, Professor/ECE
2) Dr. M. Shanmugavalli, Professor/ICE
3) Dr. P. RajKumar, Associate Professor/EEE
4) Dr. G. Mahesh, Associate Professor/MECH
5) Ms. K. SathyaPrabha, Assisstant Professor/CIVIL

Ministry of Education Government of India · SMART INDIA HACKATHON 2023 · आज़ादी का अमृत महोत्सव · G20

SMART INDIA HACKATHON 2023
SOFTWARE & HARDWARE EDITION

Guidelines for participating in the Smart India Hackathon 2023:

- Visit the website www.sih.gov.in . Go through the Problem statements given in the website. Identify the Problem Statements which could be solved by you. The link for the problem statement is https://www.sih.gov.in/sih2023PS.
- Form a team of 6 members including at least one female member as mandatory and a mentor for guiding you.
- Students cannot directly register themselves in the SIH website. You can only be registered by the college SPOC.
- Get ready with the solutions of Problem statements in the form of PPT as well as the working model/prototype.
- All team members should be from same college; no inter-college teams are allowed. However, members from different branches of the same college/ institute are encouraged to form a team.
- Register your team details and problem statements in the link: **https://forms.gle/hEQdm8DKjuGEE8bA8**
- Last date for registration is on or before **12th Sep 2023.**
- As the software edition of the hackathon is digital product development competition, majority of the team members MUST be well versed with programming skills. For the hardware edition, we encourage multi-disciplinary teams – which means your team should have a good mix of Mechanical Engineers, Electronic Engineers, Product Designers and Programmers, etc.
- All these teams will be participating in the recommended internal hackathons conducted during the **third week of September 2023** in our college.
- Evaluation criteria will include novelty of the idea, complexity, clarity and details in the prescribed format, feasibility, practicability, sustainability, scale of impact, user experience and potential for future work progression.
- After a thorough scrutiny by your mentor, internal and External Experts on the day of Internal Hackathon to be organized by our college, the team may be adjudged /selected to participate in the final SIH 2023 (representing our college).
- Amount of prize money to be awarded to each winning team is Rs.100000/- per problem statement.
- Teams are also encouraged to think out-of-the-box and provide creative solutions to themes under 'Students Innovation' category. 3 teams per nodal center will be selected of which 1st prize money will be of Rs 1 Lac and 2nd of Rs 75000 and 3rd will be of Rs 50000.
- If any queries regarding the registration and participation you can Contact Mail id – sih@saranathan.ac.in
- For More Information regarding SIH-2023 Contest , peruse the website **www.sih.gov.in**

Ministry of Education Government of India · MoE's INNOVATION CELL (GOVERNMENT OF INDIA) · AICTE

SMART INDIA HACKATHON 2023
SOFTWARE & HARDWARE EDITION

Submitted By : B. Rethina Kumar ,SPOC, SIH-2023   Date : 2 / 9 / 2023

Submitted To : The Secretary

Through   : The Principal

Subject   : Proposal for Conducting Internal Hackathon to select the teams for participating in SIH-2023 Software and Hardware Edition-Reg.

Respected Sir,

        Smart India Hackathon (SIH-2023) the most awaited all India event for the students for the year 2023 is organized by the Ministry of Education ,Govt of India with joint venture with All India Council for Technical Education (AICTE)

Main Objective SIH-2023 - At the core of the Smart India Hackathon lies a deeper objective – to inspire students to develop digital solutions that transform lives. By fostering a culture of innovation, this Hackathon encourages participants to think beyond textbooks and classrooms and empowers them to practically apply their knowledge. It aims to bridge the gap between academia and industry. Equipping students with the skills and confidence to tackle real-world problems head-on.

        As per guidelines given by the SIH-2023, we are requesting our students to form their team with team lead and provide solution to the SIH-2023 problem statements. The Heads of various technical departments and SIH -2023 department coordinators have to create awareness and provide the information regarding SIH-2023 and motivate the students to register for Internal Hackathon and come out with out of box solutions for the problem statements provided by SIH-2023 . In this respect, we have planned to conduct Internal Hackathon at our Institution in the third week of September 2023.

        We have planned to evaluate Internal Hackathon with Internal Jury Members , External Jury Members and with International Software Experts from USA and South Korea through online mode to select the teams to participate in the SIH-203 with good innovative solutions for the SIH-2023 problem statement .

        Hence, the Principal is requested to accord approval for the conduction of Internal Hackathon 2023 and forward this SIH-2023 proposal to our respected Secretary for further approval.

Thanking you,
Yours faithfully,

(B.Rethina Kumar,SPOC,SIH-2023)

SARA SIH-2023 - Internal Hackathon 2023 – Proposed Methodology

STEP 1   Revealing the SIH-2023 Problem Statement to the Students and Students Team Formation.

STEP 2   Internal Team Registration in SARA – Portal, Submission of Innovative Solution for the SIH-2023 Problem Statement and Submit the related documents to the SIH SPOC-2023 with the documents reviewed by the nominated mentors for the Students Team.

STEP 3   Review of the problem statements with solution provided by the selected Internal Teams - suggestion from juries and mentors and update accordingly.
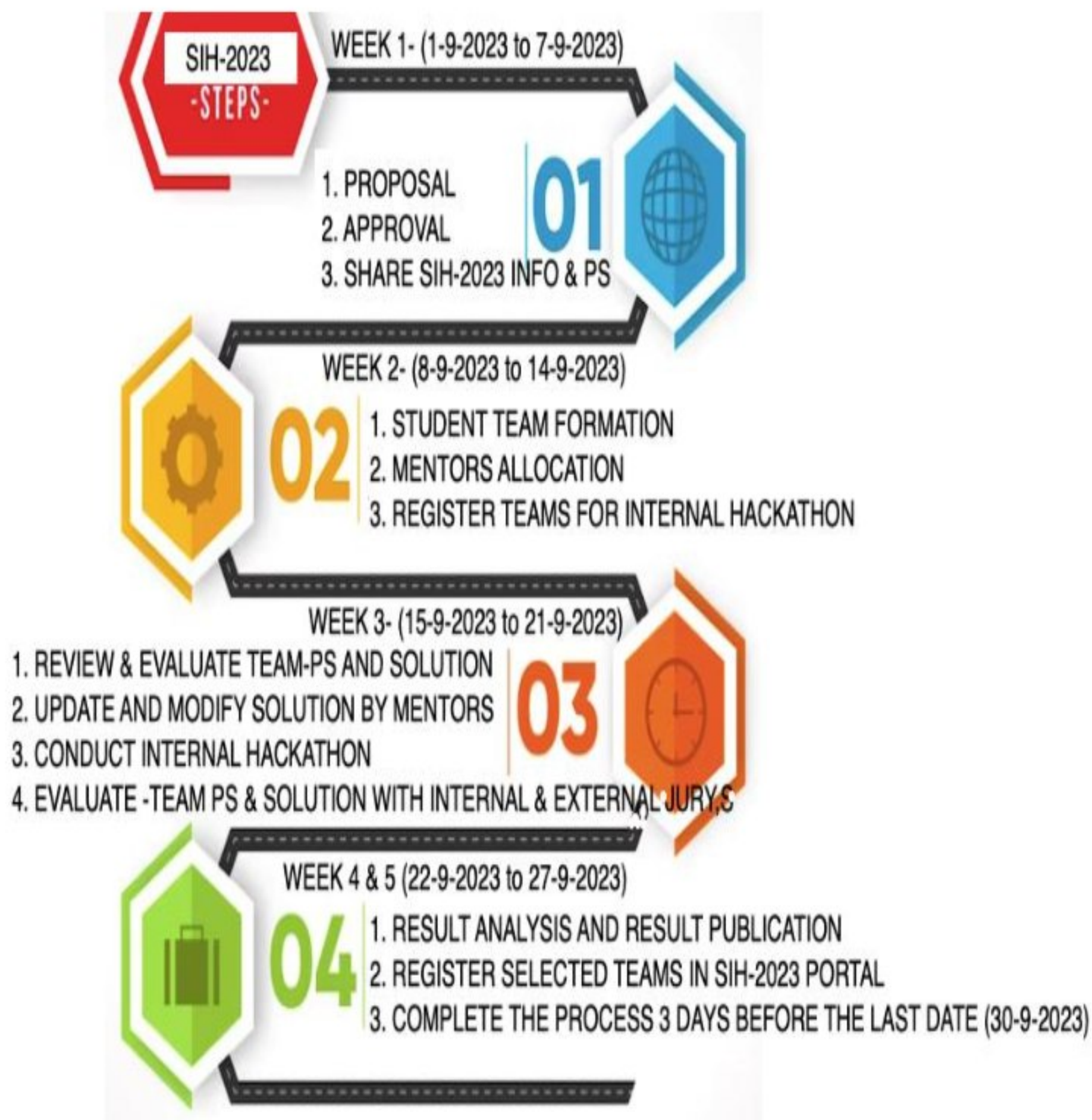

STEP 4   SPOC to be responsible to conduct internal hackathon in the campus to finalise the total best 30 teams + 5 waitlisted teams from the internal hackathon. SPOC to recommend the selected teams for SIH 2023 Software/Hardware edition at SIH portal

STEP 5   Final evaluation of submitted ideas, Result Analysis and Result Publication.

STEP 6   Team leaders of the selected teams to be registered at the SIH portal to submit the ideas . Submission of ideas by selected teams against problem statements by college SPOC for the SIH2023.

SARA - SIH 2023- Time Line Schedule.

SIH-2023 -STEPS-

WEEK 1- (1-9-2023 to 7-9-2023)

01

1. PROPOSAL
2. APPROVAL
3. SHARE SIH-2023 INFO & PS

WEEK 2- (8-9-2023 to 14-9-2023)

02

1. STUDENT TEAM FORMATION
2. MENTORS ALLOCATION
3. REGISTER TEAMS FOR INTERNAL HACKATHON

WEEK 3- (15-9-2023 to 21-9-2023)

03

1. REVIEW & EVALUATE TEAM-PS AND SOLUTION
2. UPDATE AND MODIFY SOLUTION BY MENTORS
3. CONDUCT INTERNAL HACKATHON
4. EVALUATE -TEAM PS & SOLUTION WITH INTERNAL & EXTERNAL JURY,S

WEEK 4 & 5 (22-9-2023 to 27-9-2023)

04

1. RESULT ANALYSIS AND RESULT PUBLICATION
2. REGISTER SELECTED TEAMS IN SIH-2023 PORTAL
3. COMPLETE THE PROCESS 3 DAYS BEFORE THE LAST DATE (30-9-2023)

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Ministry of Education Government of India · **SMART INDIA HACKATHON 2023** · आज़ादी का अमृत महोत्सव · **G20** भारत 2023 INDIA

SMART INDIA HACKATHON 2023
SOFTWARE & HARDWARE EDITION

Notice

DATE: 4/9/2023

Smart India Hackathon (SIH-2023) 6th Edition the most awaited All India event for the students for the year 2023 is organized by the Ministry of Education, Govt of India with joint venture with All India Council for Technical Education (AICTE)

At the core of the Smart India Hackathon lies a deeper objective – to inspire students to develop digital solutions that transform lives. By fostering a culture of innovation, this hackathon encourages participants to think beyond textbooks and classrooms and empowers them to practically apply their knowledge.

It aims to bridge the gap between academia and industry, equipping students with the skills and confidence to tackle real-world problems.

There would be ONE single winning team for every problem statement posted on the web portal of AICTE-SIH 2023. The amount of prize money awarded to the winning team would be Rs.1 Lakh per problem statement. To encourage and motivate our students, the college management is also awarding the winning team with the same amount of cash prize .

For More Information regarding SIH-2023 Contest , peruse the website **www.sih.gov.in**

PRINCIPAL

Ministry of Education Government of India · MoE's **INNOVATION CELL** (GOVERNMENT OF INDIA)

The Institution of Engineers (India)

In Association with

SARANATHAN COLLEGE OF ENGINEERING
(Approved by AICTE and affiliated to Anna University , Chennai)
(Accredited by NAAC with A+ Grade)
Venkateswara Nagar,   Panjappur, Tiruchirapalli.

All India Workshop on

Artificial Intelligence and Machine Learning Applications in Electrical Engineering

20-21September 2023

Inauguration – Detailed program

➤ Invocation

➤ Welcome address by The Chairman, The Institution of Engineers (India), Tiruchirappalli Local centre

➤ About the Convention by Dr.S.Dharmalingam, National Council member, IEI

➤ Honouring the President and the Chief Guest with Shawls by Chairman IEI TLC

➤ Introduction of the President by Dr. R. Vijay,SCE

➤ Presidential address

➤ Introduction of the Chief Guest by Dr. Dharmalingam

➤ Inaugural address by the Chief Guest

➤ Memento to Chief Guest by the Chairman IEITLC

➤ Vote of thanks by Hon. Secretary, IEI TLC

Date : 20-9-23, Wednesday
Time : 10 AM
Venue : Civil Conference Hall

Report of All India Workshop on "Artificial Intelligence and Machine Learning Applications in Electrical Engineering"

On September 20th and 21st, 2023, a two-day All India workshop on "Artificial Intelligence and Machine Learning Applications in Electrical Engineering" was organized by the IEI Trichy local center in collaboration with the Department of Electrical and Electronics Engineering at Saranathan College of Engineering. Around 70 students, research scholars and faculty members from various institutions participated in the workshop. The event commenced with the college prayer song, which was followed by the recitation of the Tamil Thai Vazthu.
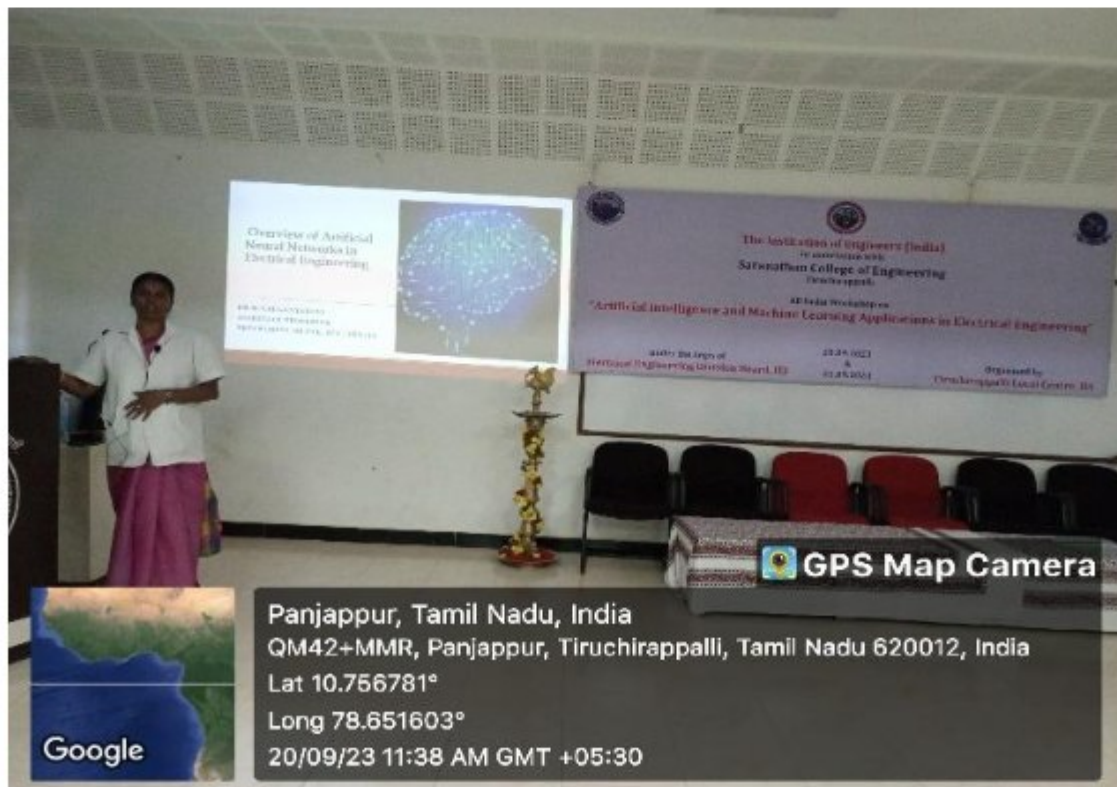

The greeting address was given by Dr. S. Dharmalingam, convenor. The resource persons light the holy lamp (kuthu villaku) to mark the auspicious beginning of the event. Dr. D. Valavan, Principal, Saranathan College who was presiding over the inaugural function was introduced to the audience by Dr Vijay, Assistant Professor Department of Electrical & Electronics Engineering. Dr.D.Valavan,gave the presidential address. Er. M.S. Ramesh, former General Manager, BHEL Tiruchirappalli, the chief guest of the occasion, was introduced by Dr S. Dharmalingam. The chief guest in his keynote address emphasized the significance of "Artificial Intelligence and Machine Learning Applications in Electrical Engineering." Dr. Kevin Ark Kumar, Honorary Secretary of the Institution of Engineers India (IEI), Tamil Nadu Tiruchi Local Centre (TLC) also spoke. Dr.R.Natrajan, Head, R&D and Dr.C.Krishna Kumar, HoD/EEE graced the occasion by their presence.
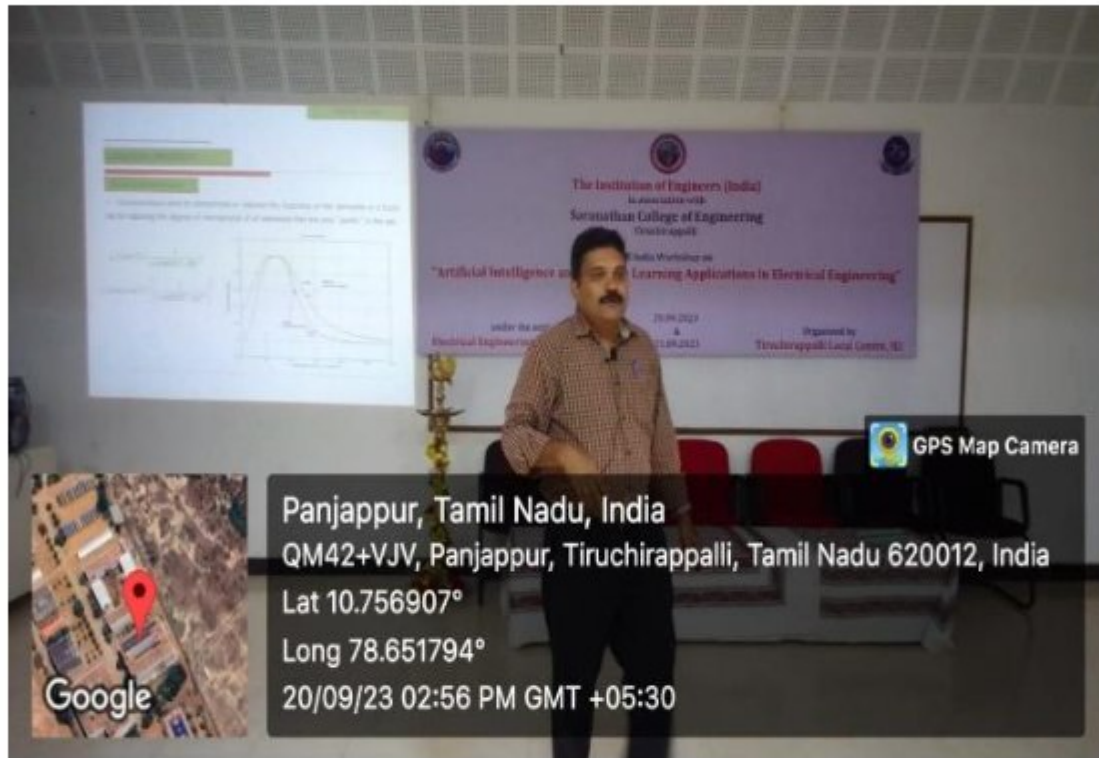
SESSION 1: 20.09.2023 from 11.30 AM – 13.15 PM

➢ The opening session of the workshop was handled by Dr. M.V. Suganyadevi, Associate Professor in the Department of Electrical and Electronics Engineering at Saranathan College of Engineering in Trichy.

➢ Her lecture focused on "An Overview of Artificial Neural Networks in the Field of Electrical Engineering."

SESSION 2: 20.09.2023 from 2.00PM – 3.15PM

➢ The second session of the day was handled by Dr. Sishaj P Simon, Professor, Department of Electrical and Electronics Engineering, National Institute of Technology, Trichy.

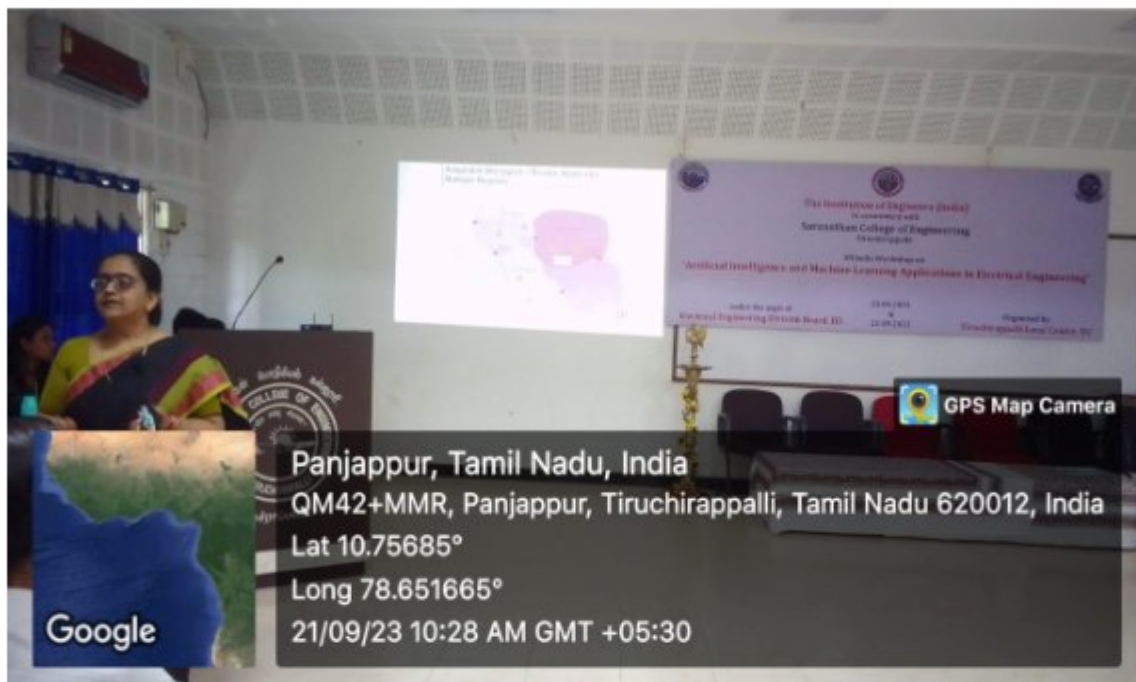➢ The presentation was on "Utilization of Fuzzy Logic Systems in Engineering.

SESSION 3: 20.09.2023 from 3.30PM - 4.45PM

➢ The session was handled by Dr. S. Moorthi, Associate Professor, Department of Electrical and Electronics Engineering, National Institute of Technology, Tiruchirappalli.

➢ The session was on the "Signal Processing algorithm and its Techniques."

SESSION 4: 21.09.2023 from 9.45 AM – 11.15 AM

> ➤ The session was handled by the expert, Professor M. Venkata Kirthiga from NIT Trichy.
> ➤ She delivered a talk on "Applications of Expert Systems in Power Systems and Power Electronics."
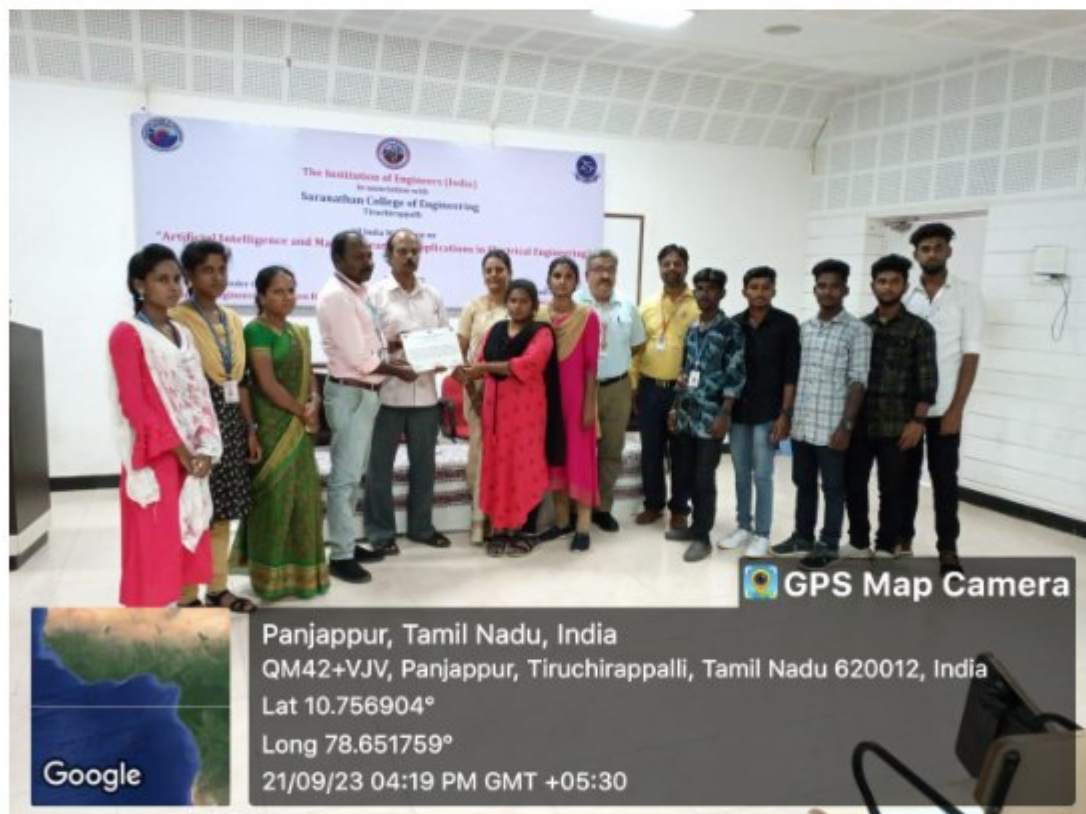

SESSION 5: 21.09.2023 from 11.45 AM – 1.15PM

> ➤ It was handled by the resource person Dr S. Ravimaran, HOD/AIDS, Saranathan College of Engineering, Trichy.
> ➤ His session centred around the subject matter of "Power System optimization using ML and DL techniques".

SESSION 6: 21.09.2023 from 2.00PM – 3.15PM

➢ The session was handled by the resource person Dr K. Geetha, Associate Professor, School of Computing, SASTRA University, Thanjavur.

➢ She delivered the talk on the subject of "The Next wave of Artificial Intelligence in Electrical Engineering".

➢ The event ened with the distribution of certificates and a vote of gratitude delivered by Dr. C. Krishnakumar, Head of the Department of Electrical and Electronics Engineering, Saranathan College of Engineering, Tiruchirappalli.

SARANATHAN COLLEGE OF ENGINEERING

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Venkateswara Nagar, Panjappur, Tiruchirapalli-620012
(Accredited with A+ grade by NAAC)

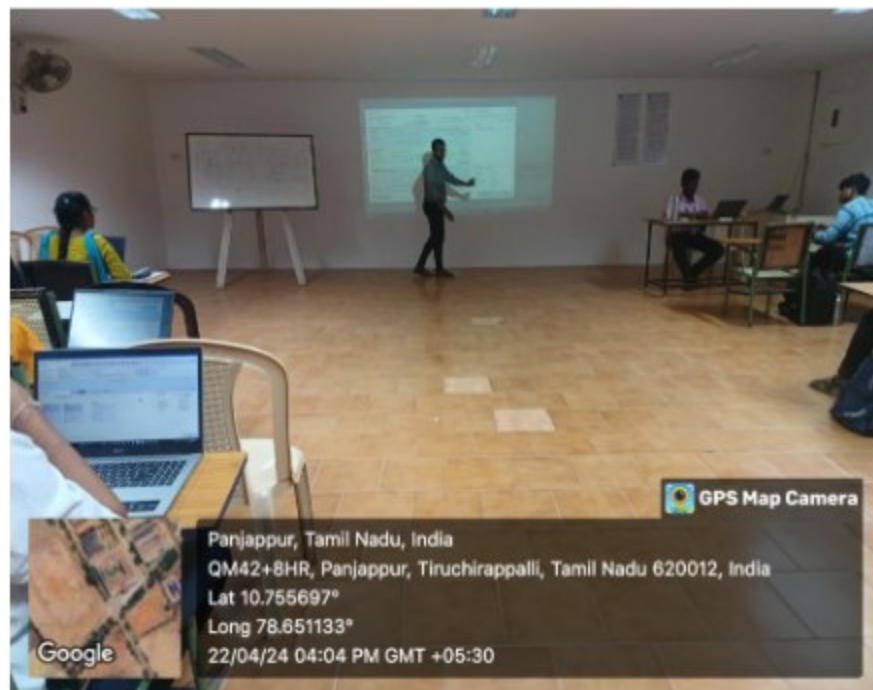## Report of One-day Workshop on "Solar Power Plant Design Using PVSYST"

A one day workshop on **"Solar Power Plant Design Using PVSYST"** was convened by IEI Students' Chapter of the Department of Electrical and Electronics Engineering, Saranathan College of Engineering on 22nd **April 2024**. Third year students of EEE participated in the Workshop. Dr.C. Krishnakumar, HoD, EEE Department gave the welcome address and Dr. R. Vijay Assistant Professor, EEE Department, Saranathan College of Engineering introduced the speaker and also highlighted the importance of PVSYST in solar power plant design.

Mr. S. Suriya Kumar delivered the inaugural address and continued the technical session along with his colleague Mr. R. Pradeep. During the session, he explained the design of Solar Power Plant using PVSYST, Selection of PV panel based on their types and sizing of PV panel array.

The afternoon session was exclusively dedicated to the hands-on training in PVSYST software. The students enthusiastically interacted with the resource person during both the sessions and gave the feedback about the session.

Panjappur, Tamil Nadu, India
QM42+8HR, Panjappur, Tiruchirappalli, Tamil Nadu 620012, India
Lat 10.755686°
Long 78.651172°
22/04/24 04:04 PM GMT +05:30

At the end of session, the resource person appreciated all the students for their active interaction and feedback. The session was concluded with the vote of thanks by Ms. Sharulatha, Third year EEE.

SARANATHAN
COLLEGE OF ENGINEERING

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Venkateswara Nagar, Panjappur, Tiruchirapalli - 620 012.

Accredited by

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25 SILVER JUBILEE

A+ NAAC

Department of Mechanical Engineering

Guest Lecture on
EMERGING TECHNOLOGY IN 3D PRINTING

ALL ARE WELCOME

Date: 15/03/2024
Time: 10:00 am
venue: ME Seminar Hall

3D Printing

SPEAKER

Dr. G. Mahesh
Associate Professor
Department of Mechanical Engineering

Dr. R. REKHA
HOD/MECH

Dr. D. VALAVAN
PRINCIPAL

Shri. S. Ravindran
SECRETARY

Saranathan College of Engineering, Tiruchirappalli - 620 012
Department of Mechanical Engineering
FDP on CME339-Additive Manufacturing

08th January 2024 to 10th January 2024

Date & Day	Session-1 9.30 am to 11.00 am	Tea Break 11.00am to 11.15am	Session-2 11.15 am to 12.45 pm	Lunch Break 12.45 pm to 1.30 pm	Session-3 1.30 pm to 3.00 pm	Tea Break 3.00 pm to 3.15 pm	Session-4 3.15 pm to 4.45 pm
08-01-2024 Monday	Inauguration by **Mr. K. Sathis Kumar** Managing Director, CADD Centre, Tiruchirappalli		**Dr. M. Duraiselvam** Professor, Department of Production Engineering National Institute of Technology, Tiruchirappalli		**3D Modelling** **Dr. M. Ganesan,** Associate Professor, Department of Mechanical Engineering, Saranathan College of Engineering, Tiruchirappalli		**3D Printer Lab** **Dr. G. Mahesh,** Associate Professor, Department of Mechanical Engineering, Saranathan College of Engineering, Tiruchirappalli
09-01-2024 Tuesday	**Various types of 3D printers and applications** **Mr. K. Vignesh** Program Developer, TATA Consultancy Service, Bangaluru.		**Optimization Techniques** **Dr. N. Baskar** Professor, Department of Mechanical Engineering, Saranathan College of Engineering, Tiruchirappalli.		**Topology Optimization** **Dr. M. Ganesan,** Associate Professor, Department of Mechanical Engineering, Saranathan College of Engineering, Tiruchirappalli		**Topology Optimization** **Dr. M. Ganesan,** Associate Professor, Department of Mechanical Engineering, Saranathan College of Engineering, Tiruchirappalli
10-01-2024 Wednesday	**Contemporary Research in Additive Manufacturing** **Dr. R. Rekha** Associate Professor, Department of Mechanical Engineering, Saranathan College of Engineering, Tiruchirappalli.		**STL format using 3D printer** **Dr. G. Mahesh,** Associate Professor, Department of Mechanical Engineering, Saranathan College of Engineering, Tiruchirappalli		**3D Printer Lab** **Dr. G. Mahesh,** Associate Professor, Department of Mechanical Engineering, Saranathan College of Engineering, Tiruchirappalli		**Valediction by** **Dr. D. Valavan** Principal, Saranathan College of Engineering, Tiruchirappalli

HOD / MECH

ABOUT THE COLLEGE

Saranathan College of Engineering was founded by "Vidya Seva Ratnam", "Guru Seva Mani" Auditor Sri. K. Santhanam in the year 1998. It was so named in respectful memory of his Guru Principal Saranathan, the greatest ever Principal of National College, Tiruchirappalli. It is a self-financing college approved by AICTE and affiliated to Anna University, Chennai. Civil, CSE, ECE, EEE, ICE, IT and Mechanical Engineering departments are permanently affiliated to Anna University, Chennai. All the eligible 6 UG branches are accredited by NBA,New Delhi.

ABOUT THE DEPARTMENT

The Department of Mechanical Engineering was started in the year 2005. The department offers an undergraduate programme B.E. Mechanical Engineering with sanctioned intake of 120 students and a postgraduate programme M.E Thermal Engineering with a sanctioned intake of 18 students. The department is accredited by NBA, New Delhi (since June 2018) in TIER II category. Also the department is a recognized research centre of Anna University, Chennai and it has the state-of-the-art laboratories, CAD centre with advanced software, a department library, experienced and expert faculty members having doctoral degrees and outstanding research publications in peer reviewed International and National journals. The department's mission is to generate employable mechanical engineering graduates with knowledge, skills and ethics; provide them with the professional and soft skills necessary to lead a successful career and peaceful life and equip them with the confidence necessary to contribute to society by performing in their respective chosen fields of endeavour.

PROGRAMME EVALUATION COMMITTEE (PEC)

CHIEFPATRON:

Shri. S. Ravindran
Secretary

PATRON:

Dr. D. Valavan
Principal

CHAIRPERSON:

Dr. N. Baskar
Professor,
Department of Mechanical Engineering.

COORDINATOR:

Dr. R. Rekha
Associate Professor & Head (In-charge)
Department of Mechanical Engineering.

PEC MEMBER:

Dr. C. Krishnakumar
Professor & Head, Department of Electrical and Electronics Engineering.

ORGANIZER:

Dr. G. Mahesh
Associate Professor,
Department of Mechanical Engineering.

CONVENER:

Dr. M. Ganesan
Associate Professor,
Department of Mechanical Engineering.

ADDRESS FOR CORRESPONDENCE:
Dr. S. Karthikeyan (+91 9344080099)
Assistant Professor,
Department of Mechanical Engineering,
Saranathan College of Engineering,
Panjappur, Tiruchirappalli-620012,
Tamil Nadu.
Email: karthikeyan-mech@saranathan.ac.in

SARANATHAN COLLEGE OF ENGINEERING
Venkateswara Nagar, Panjappur, Tiruchirappalli-620012, Tamil Nadu.

Presents

3-Day Faculty Development Programme
On
CME339-ADDITIVE MANUFACTURING
(2021- Regulation Vertical 2)

08, 09 and 10 January 2024

Organized by

Department of Mechanical Engineering
Saranathan College of Engineering
Venkateswara Nagar, Panjappur, Tiruchirappalli-620012, Tamil Nadu.

OBJECTIVES AND CONTEXT

The main objective of the programme is to train the participants on various CAD, CAM and CIM tools used in various stages of product design & development. They are as follows:

- Design of product using 3D modelling software like CREO, Autodesk Inventor Series & Solid works.
- Creating 3D model for printing in 3D printer.
- File conversion from CAD file to STL format.
- Development of various alternate designs using Generative Design approach.
- Development of Prototype using 3D Printing Technology.
- Topology optimization of various components of a product using FEA software.

RELEVANCE

To train the faculty members of engineering colleges, as well as research organizations on various CAD, CAM and CIM tools available in new product design & development.

EXPECTED OUTCOMES

The participants will be

- Exposed to latest technologies like Generative design approach, Topology optimization, 3D Printing, Automatic CNC code generation, etc.
- Able to pursue research in new product design on those above cutting technologies.
- Able to share the knowledge with faculty members & students of their institutes.

TOPICS OF INTEREST:

1. 3D Modelling Design
2. File conversion
3. Process Planning of 3D printer
4. Assembly of 3D printer
5. Generative Design approach
6. Prototype generation using 3D Printer
7. Topology Optimization
8. FEA Simulation
9. Industrial Visit

REGISTRATION:

The duly filled registration forms with sponsoring authority signature (scanned copy) must be sent to the convener by Email on or before 02.01.2024. Total number participants are restricted to 25 only.

No Registration Fee for Participants.

ISSUANCE OF CERTIFICATES:

All the participants have to appear for a test at the end of the programme. Based on the performance, certificates will be issued to the participants.

ACCOMMODATION

Accommodation may be provided

IMPORTANT DATES

Last date for receipt of application: **02.01.2024**
Intimation to selected participants: **04.01.2024**

Participants are advised to bring their personal laptop for better learning

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SARANATHAN COLLEGE OF ENGINEERING
Venkateswara Nagar, Panjappur, Tiruchirappalli-620012, Tamil Nadu.

Presents

3-Day Faculty Development Programme

On

Additive Manufacturing
(8, 9 and 10 January 2024)

REGISTRATION FORM

Name :

Designation :

Department :

Institution :

Address :

E-mail ID :

Years of Experience:

Accommodation : Required / Not Required

Mobile :

PRINCIPAL
(Seal & Signature)

Entrepreneurship Awareness Programme (EAP)

Entrepreneurship development cell of Saranathan College of Engineering conducted its awareness camp about Entrepreneurship on 18.08.2023, to benefit the Prospective youth student entrepreneurs of our college in association with SELF RELIANT BHARAT MISSION.

Chief Guest:

- **Shri Sathish Kumar** - Co Convenor of Self Reliant Bharat Mission

- It was a special honour and great privilege for the Department of Management Studies of Saranathan College of Engineering to join hands with the Self-reliant Bharat Mission in hosting an Entrepreneurship Awareness Programme on 18.08.2023 (Friday). The programme was successfully organized under the auspices of our beloved Secretary, Shri. S. Ravindran. The Chief Guest of the programme was Shri. Sathish Kumar Ji, Co-Convenor, Self-Reliant Bharat Mission, who is spearheading the movement of self-reliance in India's quest to become the Global Superpower and translating the thought of making Mother India and her children economically independent and powerful, a reality. The programme was also graced by various eminent delegates of Self-reliant Bharat Mission, Shri. Ashok Sundaresan, Convenor Tamil Nadu, Shri. Varadharajan, Co-convenor, South Tamil Nadu and Shri. Sathyanarayanan, Zone In-charge, Tamil Nadu and Kerala of Self-reliant Bharat Mission.

- Shri. S. Ashok Sundaresan, Convenor Tamil Nadu, Self-reliant Bharat Mission, a Chartered Accountant by profession from Trichy, introduced the Chief Guest, Shri. Sathish Kumar Ji to the audience. Shri. S. Ashok Sundaresan highlighted the achievements of the Self-reliant Bharat Mission. The eminent person lamented that the organized sector, comprising the much celebrated (incorporated companies) takes lot of undue credit and media attention fueling the craze among India and her people for corporate jobs, MNC products and services while it is the unorganized sector/informal enterprises which accounts for more than 54% of India's GDP and remains the significant wealth creator of the economy. He remarked that India unInc. (comprising of farmers, small and medium enterprises, self-employed masons, electricians, petty shop owners, vendors of flowers/fruits and vegetables) has lots of valuable management lessons to teach the corporate world.

- The Chief Guest, Shri. Sathish Kumar Ji gave a highly inspiring speech, urging the students to be job rather than job seekers so as to navigate their careers in tune with changing times, where jobs are limited but opportunities for wealth creation are limitless. He disclosed that the greatest business personalities keep their eyes, ears, and their minds open for every business opportunity and start earning at a young age, citing the examples of Warren Buffet, Jamshedji Tata. He also revealed that every successful entrepreneur, who has a stirring rags-to-riches story, is highly motivated, passionate, hardworking, techno savvy, courageous, and are persons of reliability and integrity. He urged the students to have an intrapreneurial mindset to seek and find innovate cost-effective solutions to problems, citing the example of how eminent businessmen from his own hometown, Haryana, namely Sachin Bansal and Binny Bansal, alumni of IIT, Delhi, while working for Amazon laid the successful foundation for Flipkart, a fledgling ecommerce start-up which has presently grown to become a serious contender for Amazon. He exhorted the students to pursue their entrepreneurial dreams with the mantra "Nation First; Swadeshi Must".

- Earlier, Dr. K. Karthikeyan, Professor and Head, Department of Management Studies and Co-ordinator of Entrepreneurship Development Cell of our college extended a rousing welcome to the Chief Guest and the eminent dignitaries, and the audience. The programme was keenly attended by faculty members and students. Professor and Head (Research &Development), Dr. R. Natarajan felicitated the Chief Guest with a memento and Shri. B.S. Chandramouli, Professor, Department of Management Studies, honoured the Chief Guest with a shawl.

- Overall, the programme resonated well with the young entrepreneurial minds of Saranathan College of Engineering, the MBA and engineering students. The programme ended with a question-and-answer session with the students posting their queries to the Chief Guest and the Chief Guest replying to the questions and towards the end, Professor, B.S. Chandramouli, Department of Management Studies, proposed the vote of thanks.

SARANATHAN COLLEGE OF ENGINEERING
Venkateswara Nagar, Panjappur, Thiruchirappalli - 620012

&

SELF RELIANT BHARAT MISSION

Invite you for

ENTREPRENEURSHIP AWARENESS PROGRAMME

Chief Guest

Shri Sathish Kumar
Co Convenor of Self Reliant Bharat Mission

on

18th August, 2023 (Friday)

Venue: Civil Seminar Hall

SARANATHAN COLLEGE OF ENGINEERING, TRICHY

DEPARTMENT OF MATHEMATICS

REPORT ON

NATIONAL STATISTICS DAY CELEBRATION

June 29, 2023

In recognition of **Professor (late) Prasanta Chandra's** significant contributions to statistics and economic planning, the Government of India has declared **June 29th** to be marked nationally as "Statistics Day" under the category of Special Days. The purpose of this day is to increase public awareness, especially among the younger generation, regarding the value and necessity of statistics in socio-economic planning and policy making.

In connection to this the Department of Mathematics has organized a team event **"Data Interpretation and Analysis"** for our first-year students. 120 teams (with 240 students) registered for the event. 116 teams took part in the written test for the preliminary round, which was held on June 26, 2023. From this 10 teams were selected for the final round and finals was held on 28th June 2023.

The prize winners are as follows:

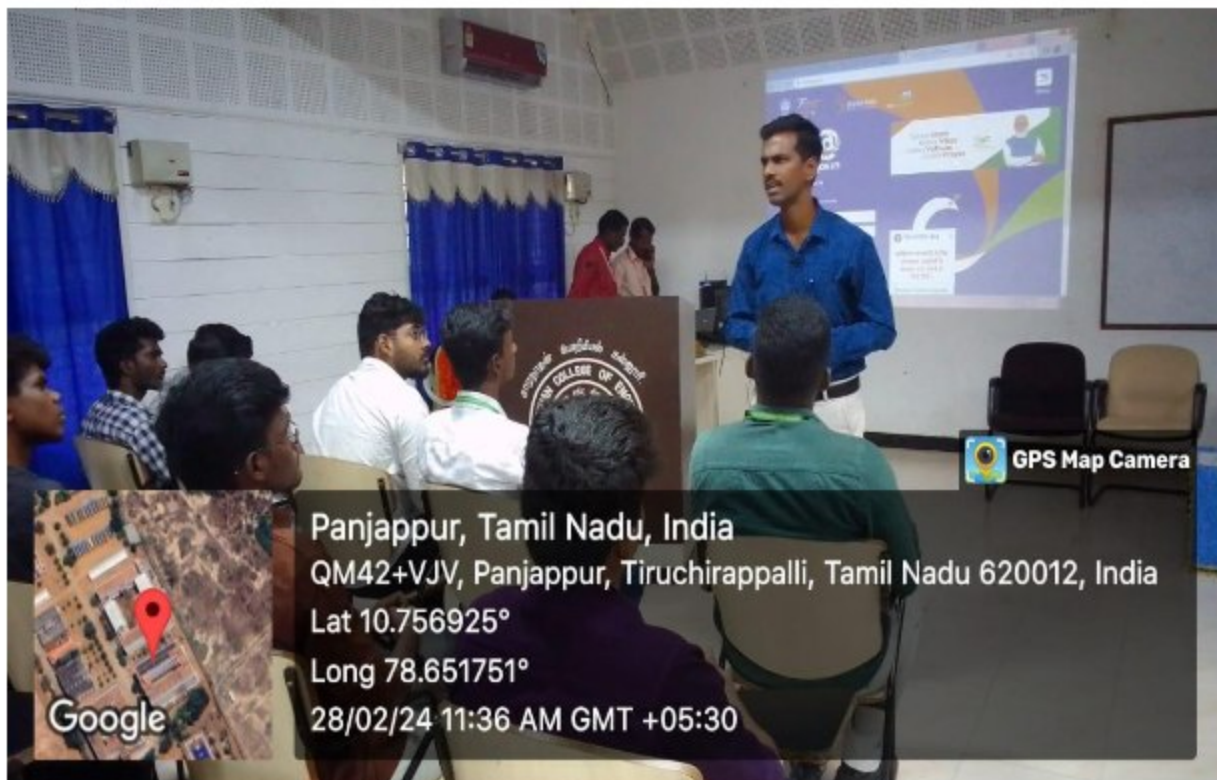|	
First Prize	S. KRISHNA KUMAR & S.V. ANBU (1st Year AI & DS 'A' Sec)
Second Prize	D.VIGNESHWARI, & P.K. SIVA SANKARI (1st Year AI&DS 'B' sec)
Third Prize	A.JEEVANTH & S. ASWIN (1st Year EEE)

NATIONAL SCIENCE DAY 2024
REPORT

The Department of Science and Humanities of Saranathan College of Engineering organized a special lecture to celebrate 'National Science Day' in commemoration of the discovery of Raman Effect by Nobel Laureate Sir. C.V. Raman. The programme commenced at 11.00 a.m. on 28th February 2024 with floral tribute to the portrait of Sir C. V. Raman. Dr. L. Muruganandam, Head, Department of Chemistry welcomed the Chief guest and gatherings. Dr. K. Giribabu, Senior scientist, Electrodics & Electrocatalysis division, CSIR-CECRI, Karaikudi was the chief guest. Dr. D. Valavan, Principal, Saranathan College of Engineering presided over the function. He encouraged the students to be determined and enthusiastic to achieve success in their life. Dr. R. Natarajan, Head (R&D) felicitated the students and faculty members for their efforts taken in the celebration of National Science Day. He outlines how Raman spectroscopy has evolved into a powerful tool in medical diagnostics. The chief guest was introduced by Dr. M. Bhuvaneswari, Head, Department of English.

In his invited lecture on "Raman Spectroscopy: Industrial Applications" Dr. Giribabu, explained the fundamental principles of Raman spectroscopy and outlined the recent developments in the application of Raman spectroscopy in different fields. A total of 96 students from various branches of Engineering and staff members were benefitted by the lecture. Dr. R. Mariappan, Head, Department of Physics proposed the vote of thanks and the function came to an end with the singing of the National Anthem.

Panjappur, Tamil Nadu, India
QM42+VJV, Panjappur, Tiruchirappalli, Tamil Nadu 620012, India
Lat 10.75693°
Long 78.651746°
28/02/24 11:31 AM GMT +05:30

SIR.C.V.RAMAN

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SARANATHAN COLLEGE OF ENGINEERING

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Research Department of Chemistry

Report on

The two-day International Conference on

Current Trends in Advanced Functional Materials (CTAFM-2023)

The Research Department of Chemistry organized and conducted a two-day international conference on Current Trends in Advanced Functional Materials at the J.S. Block Seminar Hall on 26th and 27th of September 2023. The participants were from across the state from places such as Sivakasi, Vellore, Chennai, Thanjavur and Tiruchirappalli.

The highlight of the conference is the wide spectrum of topics covered under the theme by the keynote and plenary speakers who were from East to West across the Globe covering the three continents namely Asia, Europe and North America. The high profile and the scientific acumen of the invited speakers are indicated by their h-index which ranges from 25 to 81. The h-index and citations of the invited speakers are given below:

No.	Name and affiliation	h-index	Citations
1	Dr. J.J. Vittal, Emeritus Professor, National University of Singapore, Singapore	81	26,500
2	Dr. S. Nagarajan, Head, Dept. of Chem, CUTN, Tiruvarur, Tamil Nadu	25	2,417
3	Dr. Elango, Gandhigram Rural University, Gandhigram, Tamil Nadu	33	3,837
4	Dr. S. Gnanakumar, Head, Dept of Physical Chemistry, Madurai Kamaraj University, Madurai, Tamil Nadu	47	18,000
5	Dr. M.V. Reddy, Senior Professional Reseracher, Nouveau Mode Graphite (NMG), Motnreal, Quebec, Canada	72	18,500
6	Dr. S. Kalyanasundaram, Emeritus Professor, Swiss Federal Institute of Technology, Lausanne, Switzerland	55	27,000
7	Dr. Sri Ranjini Arumugam, XeedQ GmbH, Leipzig, Germany	10	747

Day 1: 26th September 2023

Inauguration

Dr. S. Nagarajan, Professor and Head, Department of Chemistry, Central University of Tamil Nadu, Thiruvarur, Tamil Nadu was the guest of honour and Dr, D, Valavan, Principal, Saranathan College of Engineering presided over the function.

The program started with the invocation by singing the college prayer song and Thamiz Thai Vazhthu. Dr. L. Muruganandam, Associate Professor & Head, Department of Chemistry welcomed the gathering followed by the felicitation address of Dr. R. Natarajan, Professor & Head (R&D). He emphasized the importance of development in science and insisted the audience to make the fullest use of the conference. In the presidential address Dr. D. Valavan, Principal, Saranathan College of Engineering highlighted that the lectures by the resource persons would enlighten the audience and inspire more and more research in newer and inter-disciplinary areas. Inaugural address was delivered by Dr. S. Nagarajan, Professor & Head, Central University of Tamil Nadu, Tiruvarur. In his speech he explained the development of functional materials in the past few decades and the growth of advanced materials in the global market. Dr. V. Balamurugan, Assistant Professor, Department of Chemistry proposed vote of thanks.

Technical Session 1

The technical Session-1 started with the plenary lecture by Dr. Jagadeesh J. Vittal, Emeritus Professor, National University of Singapore, Singapore. In his speech he discussed the overview of the development of photoreactive crystals exhibiting [2+2] cycloaddition reaction and its dynamic effects. He had explained the concepts towards a rational approach for the fabrication of advanced solid-state materials. He also presented on photo salient and thermosalient crystals a topic very new most of the audience present.

Technical Session 2

In the second session the keynote lecture was delivered by Dr. S. Nagarajan, Professor & Head, Central University of Tamil Nadu, Thiruvarur on "Organic electronics". He focused that organic electronics will help to solve the crucial problems of modern society. He insisted the compatibility with of solution-based fabrication techniques make organic semiconductors an extremely viable novel technology of the future.

Technical Session 3

In the third session, Dr. K. P. Elango, Professor & Head, Gandhigram Rural Institute, Dindigal, presented the detection certain challenging anions such as fluoride and cyanide in solution as well as in biomaterials. This was followed by oral presentation by the participants. Several research scholars presented their research findings in their presentations.

Technical Session 4

The first session in the morning started with an invited speaker addressing the gathering from South Korea and the last speaker of the day was from Montreal, Canada ythat is from East most part of the Globe to the west most part separated by a time difference of 13 hours. In the fourth session, Dr. M. V. Reddy, Senior Professional Researcher, Nouveau Monde Graphite (NMG), Quebec, Montreal, Canada, discussed the materials for energy storage renewable technologies.

Day 2: 27th September 2023

Technical Session 5

This session was handled by Dr. Natarajan, Head, Research and Development, Saranathan College of Engineering, Tiruchirappalli. He presented the use of chelating agents as mineral collectors in the beneficiation of ores by froth flotation. The concept was new to many of the participants and they understood a new area that utilizes metal chelation.

Technical Session 6

Dr. K. Kalyanasundaram, Senior Scientist, Laboratory of Photonics and Interfaces, EPFL, Lausanne, Switzerland. In his speech, he discussed the advantages and disadvantages of the first- and second-generation photovoltaics and explained the importance of third generation photovoltaic solar cells in efficient energy harvesting. The plenary lecture was followed by the poster presentation session.

Technical Session 7

Dr. Sri Ranjani Arumugam, Head-Project Management, XeedQ GmbH, Leipzig, Germany, delivered the lecture from Germany. She explained the different types of diamond. Explained how Nitrogen-vacancy color center in diamond are used in nanoscale applications in bioimaging and biosensing.

Technical Session 8

This session was handled by Dr. G. Gnana kumar, Head, Department of Physical Chemistry, Madurai Kamaraj University, Madurai, Tamil Nadu. Being a post-doctoral student of 2019 Nobel prize winner in chemistry, Prof. John B. Goodenough his lecture was around electrochemistry and various fuel cells including direct urea fuel cell (DUFC) that produces electrical energy from human urine. He also explained the use of new nano catalyst for the development of fuel cells, batteries and electrochemical sensors

Valediction

Dr. KalyanaSundaram from Geneva, Switzerland was the chair person for the valedictory function. Several participants gave their feed back about the conference. After that Dr. Natarajan and Dr. Gnana kumar gave their impression about the conference and the presentations by the students. Dr. Kalyanasundaram emphasized the importance of inter disciplinary research whether science and engineering departments combine to work together. Dr. G. Thulasi, Assistant Professor, Department of Chemistry, Saranathan College of Engineering, proposed the vote of thanks. The two-day event marked by lectures of people of eminence came to a close with the National Anthem.

बौद्धिक संपदा कार्यालय, भारत सरकार, Intellectual Property Office, Government of India...

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सत्यमेव जयते

पेटेंट कार्यालय, भारत सरकार
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पेटेंट प्रमाण पत्र | Patent Certificate

(पेटेंट नियमावली का नियम 74) | (Rule 74 of The Patents Rules)

पेटेंट सं. / Patent No.	442891
आवेदन सं. / Application No.	202041016917
फाइल करने की तारीख / Date of Filing	20/04/2020
पेटेंटी / Patentee	1.Dr. G. Mahesh 2.S. Karthikeyan 3.Dr. N. Baskar 4.A. R. Subash

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित *A DRAFTING DEVICE* नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख अप्रैल 2020 के बीसवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled *A DRAFTING DEVICE* as disclosed in the above mentioned application for the term of 20 years from the 20th day of April 2020 in accordance with the provisions of the Patents Act,1970.

अनुदान की तारीख :
Date of Grant : 04/08/2023

पेटेंट नियंत्रक
Controller of Patents

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, अप्रैल 2022 के बीसवें दिन को और उसके पश्चात प्रत्येक वर्ष में उसी दिन देय होगी।

Note. - The fees for renewal of this patent, if it is to be maintained, will fall / has fallen due on 20th day of April 2022 and on the same day in every year thereafter.