



DAYANANDA SAGAR  
UNIVERSITY



SCHOOL OF  
ENGINEERING

## SOE - "The Weekly Buzz"

The Official Weekly Newsletter of **School of Engineering**



Week#28 (July 08 to 13, 2024)

[www.dsu.edu.in](http://www.dsu.edu.in)

# SCHOOL OF ENGINEERING

## VISION

- Transform lives through excellence in engineering education, research and innovation with an emphasis on sustainability, inclusive technologies and global needs.

## MISSION

- Design and deliver contemporary engineering curricula to address regional and global needs while emphasizing ethics, values, integrity and regional relevance.
- Carryout high impact academic research, industry projects and innovation activities with active student engagement to advance science and engineering knowledge and state-of-the art industry practices.
- Develop regional and national leaders to advance the society and economy.

# INDEX

Sl No	Particulars	Page No
1	Partnerships and Collaboration with Industry	04
2	Faculty Contributions	05
3	Student Activities	10
4	Important Meetings	11

# Partnerships and Collaboration with Industry

Artificial Intelligence and Robotics Department, School of Engineering, Dayananda Sagar University arranged a signing of Memorandum of Understanding (MoU) between Dayananda Sagar University and SPM India Limited on 12th July Friday, 2024 in the Board Room at 12:00 PM. The event was graced by Dr. Udaya kumar Reddy, Dean, School of Engineering; Mr. Krishna GDR, Managing Director of SPMIL; Chairpersons; and faculty members from various departments.

The event began with a presentation by the Dean, followed by contributions from Dr. Pramod Kumar Naik, Chairperson of AI & Robotics, Dr. Rupam Bhaduri, Professor, Dept. of AI & Robotics, Prof. Basavaraj Hiremath, Dept. of CSE and the Chairperson of the Physics Department, who showcased the university's strengths in research and consultancy. Campus and laboratory visits were arranged during the visit, and Mr. Krishna GDR was very pleased to see the infrastructure and facilities available within the university and deeply impressed by the university's commitment to excellence, innovation, and its robust infrastructure and caliber of the faculty, the state-of-the-art facilities, and the dynamic approach to academic and practical challenges are truly commendable.

He also expressed interest in providing R&D and consultancy projects in the fields of AI & ML, embedded systems, mechanical engineering, and aerospace engineering.

We are very thankful to the Management, Vice-Chancellor, Registrar, Deans, Chairpersons and faculty members of various departments for their continuous support and encouragement.



# Faculty Contributions

## Department of ECE

- Dr. Saara K, Professor of ECE, served as an organizing committee member at the IC-MNSS-2024 conference at IISc Bangalore. Her involvement highlights our University's commitment to advancing research in MEMS and Photonics.
- Ms. Neeraja Patil (ENG21EC0071), 7th-semester ECE student, presented a paper at the IC-MNSS-2024 conference at IISc Bangalore titled "Gold-Coated 2D Photonic Crystal Biosensor for Effective Tuberculosis Detection," under the guidance of Dr. Saara K, Professor of ECE. The research highlights the use of a gold layer to enhance sensitivity for TB detection through surface plasmon resonance.



Department of Electronics and Communication Engineering organized a webinar "Uncovering Machine Learning Applications in Network Operation", Date: 13-07-2024, with the participation of around 50 students.

Speaker: Mr. Ashwin DV, Senior Software engineer, CISCO, Bengaluru.

Organizer: Dr. BM Ashwin Desai, Associate Professor, ECE, SoE, DSU

The expert speaker shared comprehensive knowledge on the subject, covering various aspects including benefits, challenges, data requirements, algorithm selection, real-time processing, anomaly detection, predictive maintenance, and future trends.



**Department of ECE, SoE**  
**Dayananda Sagar University**

**CORDIALLY INVITES YOU TO**

**WEBINAR**  
**ON**  
**UNCOVERING MACHINE LEARNING**  
**APPLICATIONS IN NETWORK**  
**OPERATIONS**

**SPEAKER**  
**MR. ASHWIN DV**  
**SENIOR SOFTWARE ENGINEER -**  
**CISCO, BENGALURU**

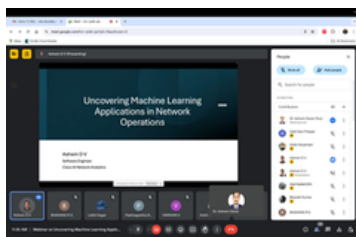
**13 JULY** **11.30 AM**

**REGISTER NOW**

**Dr. Arun Bahadri**  
Professor, Chairman ECE  
Dayananda Sagar University

**Coordinator**  
**Dr. BM Ashwin Desai**  
Associate Professor, ECE  
Dayananda Sagar University

**Dr. Uday Kumar Reddy K R**  
Professor, Dean SoE  
Dayananda Sagar University



## Department of CSE - (Data Science)

Prof. Shivamma D, Assistant Professor, Dept. of CSE (DS), participated in a one-day The MATLAB Expo 2024 held on July 11th, 2024, Venue: Radisson Blu, Outer Ring Road, Bengaluru, Karnataka. The expo reinforced the importance of continuous learning and adaptation in the ever-evolving field of engineering and technology.



## Department of Computer Science & Technology



Prof. Ramandeep Kaur, Assistant Professor, Dept. of CST published a research paper titled “Hybrid YSGOA and neural networks based software failure prediction in cloud systems” has been successfully published with Springer Nature in Scientific Reports (Q1 journal).

My article is available online here:

<https://doi.org/10.1038/s41598-024-67107-5>

RESEARCH ARTICLE  
Hybrid YSGOA and neural networks based software failure prediction in cloud systems

Ramandeep Kaur<sup>1\*</sup> & Ramakrishna Kumar<sup>2</sup>

<sup>1</sup>Department of Computer Science and Technology, Anna University, Chennai, India. <sup>2</sup>Department of Computer Science and Technology, Anna University, Chennai, India. \*Correspondence: ramandeepkaur@annauniversity.edu

**Abstract** Software failure prediction is a critical challenge in cloud systems. This paper proposes a hybrid approach combining the YSGOA (Yield Strength Genetic Optimization Algorithm) and neural networks for software failure prediction. The YSGOA is used to optimize the parameters of the neural network, which is then used for failure prediction. The proposed method is evaluated using a dataset of software failure records from cloud systems. The results show that the proposed method achieves a higher accuracy and lower false positive rate compared to traditional methods. The proposed method is also compared with other state-of-the-art methods, and the results show that the proposed method outperforms them in terms of accuracy and computational time. The proposed method is a promising approach for software failure prediction in cloud systems.

## Department of AI and Robotics



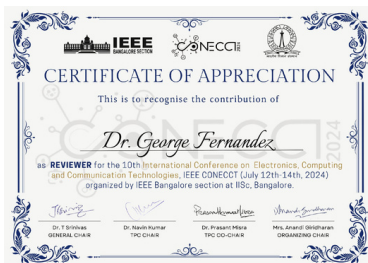
Dr. Pramod Kumar Naik, Chairman of AI and Robotics Engineering, has been awarded the ATAL Faculty Development Program (FDP) fund for the year 2024-25. The selected proposal is titled "FDP on Immersive Virtual Reality." This prestigious recognition highlights the department's commitment to advancing educational methodologies and research in cutting-edge technologies. This recognition underscores his significant contributions to the field and his commitment to advancing AI and Robotics Department.

The FDP will focus on immersive virtual reality, aiming to provide participants with in-depth knowledge and hands-on experience in this transformative field.

ATAL FDP Proposals Selected For Support with Grant in Aid 2024-25					
ATAL BASIC FDPs : UG/PG/Research Institute Category					
Sr.No.	Application Number	Coordinator Name	Host Institute Name	Host Institute Address	FDP Title
201	2024/01/01/01	Dr.Pramod Kumar Naik	BAKASANDYA SARAI UNIVERSITY	INDIATION CAMPUS, KUTALI GATE, BOUSUR ROAD, BANGALORE	ATAL Basic FDP on Immersive Virtual Reality

## Department of Computer Science & Engineering

Dr. Bipin Kumar Rai and Dr.George Fernandez served as a Paper Reviewer in 10th International Conference in Electronics, Computing and Communication Technologies (IEEE CONECCCT) held in the Indian Institute of Science, Bangalore, India, from July 12-14, 2024.



The Dept. of CSE has successfully completed training the students with a value-added course on "Digital Marketing" from 04-07-2024 to 09-07-2024. The target audience were 3rd year students of the Department of CSE. These activities were organized in virtual mode. Around 100+ students were registered for the course, of which 60+ students have completed them. All 100+ students were trained on both theoretical and practical knowledge of the present technologies in digital marketing. At the end of the activity Feedback was taken from the students and all of them have given good feedback about the conduction of course.

I would also like to thank the resource person Dr. S.Gokulakrishnan, Assistant Professor, CSE for handling the sessions to make the event successful.

I appreciate the faculty Coordinator, Prof. Soubhagyalakshmi P CSE Dept, for her efforts in coordinating and making the activity successful.

**DAYANANDA SAGAR UNIVERSITY**  
Devaragadda, Hosur, Karnataka-560024, India. 592 222

**SCHOOL OF ENGINEERING**  
Department of Computer Science & Engineering

**Organizing**  
Value-Added Course on "Digital Marketing"

**Target Audience:**  
3rd Year CSE Students

**Dates & Time:**  
04-07-2024 to 09-07-2024  
at 8:00 am  
Online

**Resource Person:**  
Dr. S. Gokulakrishnan,  
Assistant Professor, CSE Dept

**Conveners:**  
Dr. Lakshmi Kumar Reddy,  
Dean of CSE (DU)  
Dr. Sankha B. S.,  
Chairman, CSE (DU)

**Faculty Coordinator:**  
Prof. Soubhagyalakshmi P,  
Assistant Professor, CSE Dept

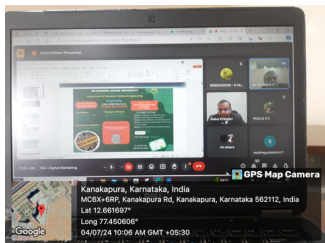
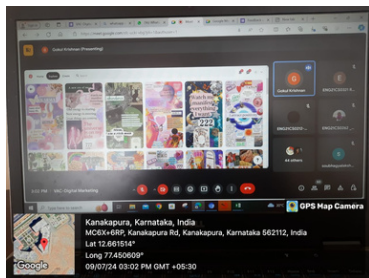
**COURSE OUTLINE:**

- Module a: Introduction to Digital Marketing
- Module b: Web design and Web analysis
- Module c: Google Analytics and SEO Optimization
- Module d: Creating a Facebook page and Business page on LinkedIn
- Module e: E-mail Marketing and Mobile Marketing

**Registration Link:**  
Register through the Link or Scan the QR Code

**join us**  
Click here to join - [WhatsApp](#)

E-Certificate will be Provided



# Student Activities

## Department of CSE & CSE (CY)

Decipher, a CTF event organized by Department of CSE at DSCE on 10th July 2024, Our students from CSE got 2nd prize in Decipher event held at DSCE, mentored by Prof Naitik ST, Assistant Professor- CSE.

- Eeshaan U Bhat, USN#ENG22CS0539 Dpet. of CSE
- Saurav Pandey, USN#ENG22CY0039 Dept. CSE(CY)



## Department Mechanical Engineering

Mrs. RANJITHA P, Research Scholar, Department of Mechanical Engineering, defended her Ph.D. thesis entitled “Influence of Boron Carbide Particles on Mechanical and Tribological Properties of Al-SiC-B4C Hybrid Composite Materials,” on July 12th, 2024. The Chairman, Faculty members and the Research scholars of the Department-School of Engineering attended the same. The meeting was held through hybrid mode. The University congratulates Research Scholar-Mrs. Ranjitha, Supervisor -Dr. Saravana bavan, Associate Professor & Co-Supervisor- Dr. B.S.Ajay Kumar, Professor Emeritus, Dept. of Mechanical Engg, KSIT, Benagurlu.



# Important Meetings

## NIRF and Accreditation processes meeting

The NIRF awareness and action plan meeting was held at Harohalli campus for the faculty of Engineering on 9th July 2024 from 10:00 AM onwards in Lecture theatre- 2. On behalf of School of Engineering, Dean, Dr. Udaya Kumar Reddy K R welcomed, Dr. Subrahmanya S. Katte, Director – IQAC. The main agenda of this meeting was to make awareness of NIRF and the action plan for NIRF 2025 to get into the rank band/top 100. Dr. Katte emphasised the difference between accreditation and Rankings, merits and demerits of the same, and also why it is important to participate in rankings and accreditation. Later Dr. Katte, gave the introduction about NIRF, detailed discussion of different parameters of evaluation of NIRF. Further the detailed discussion on action plan for each and every parameter of NIRF were discussed. The Director IQAC also demonstrated the web portal for the NIRF 2024 prediction in the category of Engineering and Overall. He also demonstrated how to enter the data to the portal to see the prediction changes for the next year. He also gave insights on the methodology implemented to predict the NIRF 2024. He also showed the targets in the web portal for each and every metric for individual departments of Engineering. The session was ended with question and answers and vote of thanks given by Dr. Udaya Kumar Reddy K R.



# External Academic Curriculum Audit

The Day-2 of External Academic (Curriculum) Audit offline exercise held on 13th July 2024.

Summary:

Overview and Insight into NEP/SEP; Cluster based detailed Discussion on the Curriculum with Subject/Industry Experts; Smaller Cluster based detailed Discussion on Curriculum at the higher semesters – with Experts; Combined Session (all clusters) to discuss interdisciplinary project based learning and relative grading.

CSE and Allied branches break into 3-5 sub-clusters, Industry-Academic experts focus on Sub-Cluster on 5th-6th and 7th sem requirements.

They have checked in detailed syllabus of the core/ domain specific courses in relevance with industry and lifelong learning. Discussed 1-2 Examples of Interdisciplinary and project-based learning, Simple way to do, Relative Grading, Session concluded on clarifications if any, followed by Feedback and thanking the resources persons.



# External NBA Audit criteria 1

Dean-SoE Welcomed and introduced the guests, Dr. Ramakantha Kumar and Dr. Radhakrishna.

Dean-SoE gave a presentation on the Genesis of DSU, SoE, programs overview, student admissions, faculty details, faculty achievements, research publications, Ph.D. awarded details, International Affairs, Key Achievements, Student Exchange Programs, Internships, Innovation and Entrepreneurship, Student-Centered Policies, Quality Assurance and Impact, Curriculum Transformation, Student Placement, Employment Summary, Program-Wide Engineering Outcomes, Result Analysis (Throughput), Innovation Labs, CSST, MoUs, AIC-DSU, DSU Infrastructure, Industry Collaboration, Extension Activities, Best Practices.

Presentation by Chairpersons covering topics: Vision, Mission, PEOs, PSOs, Samples of COs, BTL mapping and CO-PO mapping





**SCHOOL OF  
ENGINEERING**

**Edited by :  
Office of Dean SOE,  
Dayananda Sagar University  
Deverakaggalahalli, Kanakapura Road Ramanagara Dt.,  
Karnataka - 562 112**