DAYANANDA SAGAR UNIVERSITY

ACCREDITED WITH GRADE A+ NAAC

SCHOOL OF ENGINEERING

SOE - "The Weekly Buzz"

The Official Weekly Newsletter of School of Engineering

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.

Faculty Contributions

Department of CSE

- Dr Natarajan Venkateswaran, Professor of Practice, Department of CSE, delivered a talk on "Artificial Intelligence Applications in Science and Engineering", organized by the Chemical Engineers Association (Student body) of the Chemical Engineering departmentat DSCE on 18th September 2024. The talk was well received and appreciated .

- Prof. Sasikala N, Assistant Professor, Department of CSE, presented a paper titled “AI-Enhanced Farming: A Real-Time Monitoring App Powered by IoT” in the IEEE 5th International Conference on Smart Electronics and Communication (ICOSEC-2024) organized by Kongunadu College of Engineering and Technology Trichy, Tamilnadu, India on 18th to 20th September 2024.

Department of CSE (CY)

- Dr.Dilipkumar Jang Bahadur Saini has presented a paper entitled “Innovative Real Estate Management System: Artificial Intelligence-based Segregation” in the 5th International Conference on Smart Electronics and Communication organized by Kongunadu college of Engineering and Technology Trichy,Tamil Nadu,India during 18th-20th September 2024.


Kongunadu

Certificate of Presentation

- Prof.Sharanabasappa Tadkal, has successfully completed Four hours of Data Analytics using POWER BI Workshop with END-TO-END Project organized by Tech Tip24 on 15th September 2024.


CERTIFICATE of PARTICIPATION

Sharanabasappa Tadkal

Karthik K Pai (ENG21AM3013) and Dr. Monika Goyal, Assistant Professor, Dept. of CSE (AI&ML) has published a conference paper titled "Framework for Evaluating the Carbon Footprint of Academic Machine Learning Endeavor," in 2024 1st International Conference on Communications and Computer Science (InCCCS), Bangalore, India, 2024,

- pp. 1-7, doi: 10.1109/InCCCS60947.2024.10593140.

Departmental Activities

Department of CSE (AIML)

The 5th-semester AIML students of Dayananda Sagar University had the great opportunity to visit the prestigious **UR Rao Satellite Centre (URSC), Bengaluru.**

The students learned about the invaluable contributions of Dr. Ramachandra Rao, the Father of Satellite Technology in India. They also visited the clean room where satellite components are meticulously assembled and tested, ensuring optimal performance. The highlights of the visit included India's launch vehicles, PSLV and GSLV, and satellite orbits like LEO, MEO, and GEO. The Key missions like Chandrayaan-3, Aditya L1, and future missions such as Chandrayaan-4 were discussed. The students also had an overview of Reusable launch vehicles (RLV) and the NASA-ISRO collaboration on the NISAR satellite, Space docking technology.

This industrial visit was an enriching experience, highlighting India's advancements in space exploration and satellite technology.

Department of Aerospace

The III-year students from the Department of Aerospace Engineering had the opportunity to visit the Bangalore Expo on 20th September 2024, the students were exposed to the latest advancements in aerospace technology and learned about the exciting projects being showcased. From innovative spacecraft designs to cutting-edge propulsion systems, there was something to pique everyone's interest.

FPSI Fluid Power Challenge 2024 (FPC 2024): The Yoganarasimha Prize for Innovation in Design Challenge on 13 Sep 2024.

The students from final year Amshu and Sharon the department presented their concepts on fluid structure scenario titled “Development and Optimization of a Hydraulic Thrust Reverser Prototype for Enhanced Aircraft Deceleration” for FPSI Yoganarashimha Award under the guidance of Prof. Sripad, Assistant Professor, Dept of Aerospace.

Development and Optimization of a Hydraulic Thrust Reverser Prototype for Enhanced Aircraft Deceleration

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Abstract—Hydraulic thrust reversal is a critical technology in aviation, aimed to enhance the safety and performance of aircraft during landing. By redirecting the forward thrust generated by jet engines in a reverse direction, thrust reversers provide additional braking force, significantly reducing the landing distance and improving control on the runway.
This technology, though commonly utilized in the aviation industry, remains less understood outside specialized circles. Various types of thrust reverser systems are employed, including the Cascade type, Clamshell door, and Bucket target system. Each system operates differently, with hydraulics playing a vital role in the precise and efficient deployment of these mechanisms.
The integration of hydraulic systems ensures reliable operation, allowing for the smooth transition between thrust states, thereby contributing to the overall safety and efficiency of aircraft during critical flight phases. This abstract aims to provide an overview of hydraulic thrust reversal, highlighting its importance and application in modern aviation.
Index Terms—component, formatting, style, styling, insert

a series of vanes to redirect airflow and are often found in high bypass turbofan engines.(3) Both systems rely heavily on hydraulic mechanisms for deployment and operation. Hydraulic-powered thrust reversers offer several advantages, including reduced maintenance costs and simpler design compared to other methods like pneumatic or mechanical systems. (3)(4) The hydraulic actuation enables quick and efficient deployment of reversers during landing, significantly enhancing the aircraft's stopping capability, particularly in adverse weather conditions such as rain or ice. This effectiveness contributes to overall safety and operational efficiency in commercial aviation.(3)(5)

II. Procedure

A. Materials

Student Activities

Mr. Sahil Singh (ENG23CS0435), Mr Aadarsh kumar (ENG23CS0238) and Mr Arji Jethin Naga Sai Eswar (ENG23CS0267), 3rd semester CSE students successfully participated in website making competition “Web Wizard” based on Halloween theme organised by IEEE ComSoc, IEEE Student branch DSU during 13th September 2024.


CERTIFICATE
Of Participation


CERTIFICATE
Of Participation


CERTIFICATE
Of Participation

Mr. Omkar S G (ENG23CS0128), 3rd semester CSE student participated in the Engineer the Future: Ideathon competition organized by the club YANTROVE from the Department of CSE (Artificial Intelligence and Machine Learning) on 18th September 2024 and secured First place.


DAYANANDA SAGAR UNIVERSITY
CERTIFICATE
OF PARTICIPATION
Omkar S G

Mr. Chandan N S (ENG22CS0038), 5th semester CSE student has successfully Completed a Linked in Learning course on “What is Generative AI” during August 2024 and also completed Internships on Python programming intern from 12-08-2024 to 08-09-2024 at internship and Web Development from 01-08-2024 to 01-09-2024 at Coding Raja technologies.


CODING RAJA TECHNOLOGIES

CERTIFICATE

OF INTERNSHIP COMPLETION

This Certifies That - Cert ID

CHANDAN N S

has successfully completed the 1 month Webdevelopment Internship at Coding Raja Technologies from 1/08/24 to 1/09/24.

SIGNATURE

Mr. Srihari K B, from TEAM HORIZON GUARD participated and has been adjudged as a runner-up team in “VTION Innovate Hackathon” organized by Vidhi Tech Innovation Opportunities Network Private Limited in partnership with FHS Accelerator Private Limited and Hack and Grow Consultancy Private Limited on 19th September 2024.

Mr. Afwan, has successfully completed his Offline Internship at Modex Trading Pvt Ltd and involved in various activities in security operations from 13th August 2024 to 13th September 2024.


Incubate Hub

VTION

HackCulture

CERTIFICATE

OF ACHIEVEMENT

THIS TO CERTIFY THAT

Srihari K B

FROM TEAM HORIZON GUARD

participated and has been adjudged as a runner-up team in 'VTION Innovate Hackathon' organized by Vidhi Techinnovation Opportunities Network Private Limited in partnership with FHS Accelerator Private Limited and Hack and Grow Consultancy Private Limited.

Date of Issue: 19th Sept 2024


MODEX TRADING

Internship Completion Certificate

Department of CST

The students from the 7th semester participated in a business plan competition, ‘Manthan-2024’ , an event conducted by The Federation of Karnataka Chambers of Commerce and Industry, Bengaluru,

Department of AIML

The student team HORIZON GUARD, from 7th semester (Darshan Anand - ENG21AM0028, AIML, Anuj Dwivedi - ENG21AM0011, AIML, Srihari KB Cybersecurity, Naindeep Singh CSE , secured second place in the VTION Digital Hackathon, by HackCulture, and bagged a cash prize of ₹75,000. after an intense 45-day challenge with 250 participants.

The problem statement was 'Build an application for connected TVs that can track usage of OTT platforms by logging activity, content, and playback ads'.

The Department of Computer Science and Engineering (Artificial Intelligence & Machine Learning) organized a special event to honor the toppers of the 4th semester, Batch 2022-2026. Ms. Lakshya U Reddy (ENG22AM0169) and Mr. Trijal R (ENG22AM0167) secured 10 CGPA. Mr. Yogesh N (ENG22AM0070) and Mr. Harshith G R (ENG22AM0021) with 9.58 CGPA. The Head of the Department distributed the trophies to the students for their outstanding academic excellence. The Head of the Department addressed the students and encouraged the students to strive for excellence in their academic journey in future.

SCHOOL OF ENGINEERING

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