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Dr. P. Selvakumar Executive Director, PSNCET.

Patron: Dr. V. Manikandan Principal, PSNCET.

Editor in Chief: Dr. A. Packia Antony Amalan HoD/Aero, PSNCET.

Editor:

Mrs. G. Thilagapathy Asst. Prof./Aero, PSNCET.

PROGRAM SPECIFIC OUTCOMES [PSOS]:

- Graduates will be able to design and analyze various aircraft materials and structures.
- Graduates will be able to develop solutions for various aerodynamic, propulsion and control systems used in aircrafts.
- Identify and apply the knowledge of aeronautical engineering for industrial applications.

PROGRAM EDUCATIONAL OBJECTIVES [PEOS]:

- Graduates will be successful professionals in the field of Aeronautical Engineering and allied areas.
- Graduates will exhibit skills to work individually and as part of the team with ethics.
- Graduates will pursue higher studies, research and adapt to a world of constantly changing technologies.

VISSION OF THE INSTITUTION

• To emerge as a pioneer institute inculcating engineering education, skills, research, values and ethics.

MISSION OF THE INSTITUTION

- To achieve greater heights of excellence in technical knowledge and skill development through innovative teaching and learning practices.
- To develop the state of art infrastructure to meet the demands of technological revolution.
- To improve and foster research in all dimensions for betterment of society.
- To develop individual competencies to enhance innovation, employability andentrepreneurship among students.
- To instill higher standards of discipline among students, inculcating ethical and moral values for societal harmony and peace.

VISSION OF THE DEPARTMENT

 The Department of Aeronautical Engineering will strive and achieve the global recognition as a center of excellence by imparting quality education: leading to graduates becoming professionals with specialized knowledge in Aeronautical Engineering.

MISSION OF THE DEPARTMENT

- To prepare the students to acquire good fundamental knowledge in various fields of Aeronautical Engineering.
- To prepare the students to have good social, moral and ethical values.
- To prepare conducive environment to enhance the potential for sponsored

PROGRAM OUTCOMES OF B.E. IN AERONAUTICAL ENGINEERING (POS):

- Engineering Knowledge.
- Problem analysis.
- Design and development of solutions.
- Contact investigations of complex problems.
- Modern tool usage.
- The Engineer and society.
- Environment and sustainability.
- Ethics.
- Individual and team work.
- Communication.
- Project management and finance.
- Life-long learning.

DEPARTMENT ACTIVITIES



Department of Aeronautical Engineering, PSN College of Engineering and Technology organized a Five days Faculty Development Programme in the title "**Innovation on 3D Printing Technologies and its Applications**" from 10th July 2023 – 14th July 2023. Totally five session were conducted by eminent professors from IITs and NITs. The first session was conducted in the title **An Introduction to 3D Printing.** The key note address was given by Dr. P. Shivasekar, AP, Mechanical Engineering IIT Jammu. Second session was conducted by industrial expert from 3D Printing Industrial Expert, ENTUDIO (PVT) Ltd. Tirunelveli. Third session was addressed by Dr. A. Karpagaraj. Assistant Professor. Department of Mechanical Engineering, National Institute of Technology (NIT) Puducherry.



3D Printing Laboratory - IIT Jammu



3D Printing Technology - Prototype Fabrication

The title was "Recent Researches and Innovation on Additive Manufacturing". The fourth day session was delivered by Executive Director, Dr. P. Selvakumar Professor, Department of Mechanical Engineering PSNCET. on "Basics and Application 3D Printing Technology". The fifth session Dr Senthilkumaran A, Assistant Professor- Department of Mechanical Engineering, Indian Institute Information Technology Design and Manufacturing (IIITDM), Kancheepuram, Tamil Nadu. He delivered A lecture on "Fused Deposition Modeling (FDM)". Dr. A. Packia Antony Amalan HOD /Aero, PSNCET concluded the session. Totally 70 faculties actively participated in this FDP programme.



Concrete 3D Printed House - IIT Madras



The Department of Aeronautical has organized a one-day seminar on "Mission of Chandrayan -3" was held on 28.07.2023. Mr. A. Kasi Vishwanathan, Assistant Professor /Aeronautical, delivered a lecture with video presentation. A Total of 210students from various departments actively participated in this program.

TRAINING PROGRAM CONDUCTED TO FACULTY



The Department of Aeronautical Engineering has organized a one-day training program for teaching faculty in the title "**Outcome Based Education-OBE**" was held on 30.09.2023. Mr. A. Kasi Vishwanathan, Assistant Professor /Aeronautical, delivered the training program. A Total of 77 faculty members from various departments actively participated in this program.

OUTREACH ACTIVITY





The Department of Aeronautical and ISRO-Propulsion Complex IPRC-Mahendragiri jointly organized a one-day webinar program in the title "Advances in Systems Engineering Approach" on 12.08.2023. Smt K. S. Deeba, Vice President, ISSE/KKC/Division Head, delivered the inaugural address. Then a lecture was delivered in the title **Turbo** Pump System and balancing and Life support systems for humans in space.

MoU SIGNED



The Department of Aeronautical Engineering, PSN College of Engineering and Technology has signed MoU with **"Institute** of Aeronautics and Astronautics and Aviation, Chennai' on 01.09.2023.

PLACEMENT

In our department final year students 38 out of 50 were placed in the following companies Foxconn Indian Pvt Ltd Chennai, Kyungshin Industrial Motherson Limited (KIML) Chennai, Rambal Ltd Chennai, Aero Knotz Drons India Pvt Ltd Chennai, Colan Infotech Pvt Ltd Chennai, SAV construction Pvt Ltd Tirunelveli, in this academic year.

INDUSTRIAL VISIT



A two days industrial visit was organized at National Aerospace Laboratories, Bangalore in the dates 23.09.2023 and 24.09.2023. Totally 40 students and 4 staff members were actively participated in this program. In this industrial visit the aircraft components and its applications of composite materials are explained by the scientists. Then, HAL Heritage Centre and Aerospace Museum, Bangalore was also visited by the students.

EXTENSION ACTIVITY



One day extension activity in the title "**Enhancing the women employability**" at Soorangudi Village, Kalakadu Block was conducted on 16.06.2023. Totally 33 students and five faculty members were actively participated in this event.

VALUE ADDED COURSE-ANSYS



A five days value added course titled VAC - 02 - Aero - Fundamentals and Applications of Finite Element Analysis using Ansys in the period 03.10.2023 to 07.10.2023. ANSYS APDL with coding was learned by students.

UBA ACTIVITY @ SOORANGUDI



Unnath Bharath Abiyan (UBA) is one of the central Government scheme to create awareness and impart technical training to the adopted village. In this regard we had attended "Grama Saba" meeting at Sooranguldi, Kalakadu block on 15.08.2023.

ONAM CELEBRATION



The Onam celebration – 2023 was celebrated on 29.08.2023 at PG Auditorium, PSN CET. Totally seven different Onam competitions had been conducted to students named Drawing, Vegetable carving, Essay competition, Elocution, dance competition, Rangoli and Athapoo Kolam Competitions were conducted with innovative and creative themes. The winners and runners of all the events were honored with prizes.

JOURNAL PUBLICATION BY FACULTY MEMBER

1. A. Packia Antony Amalan, N.M Sivaram, and Ragavendra Subramanya (2023) "Influence of silicon carbide and graphite reinforcements and T6 ageing heat treatment on the fatigue characteristics of AZ91D magnesium alloy" Journal of Material Engineering and Performance, vol.33 issue 6 pp 2751-2767 (Publisher: Springer) (Impact Factor: 2.036) (ISSN/eISSN: 1059-9495/1544-1024)

(DOI: https://doi.org/10.1007/s11665-023-08154-3)

 A. Packia Antony Amalan, Arun Kumar, P., Balasundaram, P., Sivaram, N.M. (2023). "An Evaluation of Density and Compression Properties of AZ91D–SiC Metal Matrix Composite Produced Through Powder Metallurgy". Advances in Manufacturing, Automation, Design and Energy Technologies. ICoFT 2020. Lecture Notes in Mechanical Engineering. Springer, Singapore. pp 161–167. ISSN: 978-981-99-1288-9.
(DOI: https://doi.org/10.1007/978-981-99-1288-9 17.)

3. R. Rajkumar, A. Packia Antony Amalan* (2023) "Deep learning modelbased card less atm transaction Using face recognition system" International Research Journal of Modernization in Engineering Technology and Science, Vol.05: Issue:10. e-ISSN: 2582-5208 DOI: (https://irjmets.com/index.php)

4. A. Packia Antony Amalan and Sivaram, N.M (2023) "An anisotropy study on micro-structure and tensile strength of silicon carbide and graphite particle reinforced AZ91D hybrid composite". International Journal of Materials Engineering Innovation, vol. 14, no. 2. pp: 136-148 (ISSN online: 1757-2762) (Publisher: Inderscience Publisher) (DOI: <u>https://doi.org/ 10.1504/IJMATEI.2023.130130</u>)

News Letter Committee Student Members:

- 1. Mr. K. Janarthanan, IV-year Aeronautical Engineering
- 2. Mr. R. Vijumon, IV-year Aeronautical Engineering
- 3. Ms. S. Subithra, III-Year Aeronautical Engineering
- 4. Mr. S. Tamil Selvan, II-Year Aeronautical Engineering





Interglobal Enterprises, the parent company of IndiGo, has announced its intention to introduce an all-electric air taxi service in India by 2026. In connection with its plans to operate the air taxi service, IndiGo has signed a Memorandum of Understanding (MoU) with Archer Aviation - a company that deals in electric aircrafts, air taxis, and the like. [Source: www.hindustantimes.com]