

Nehru Institute of Technology

(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)

ALBATROSS 2021-22

Sky is the Limit

E Newsletter

2021-2022



Department of Aeronautical Engineering

About the department

Aeronautical Engineering is one of the most challenging fields of engineering with a wide scope for growth. The primary job of an Aeronautical Engineer is to devise aircraft and propulsion systems, but with time, the engineer is given many more responsibilities to carry out. Our students are undergone various recent software like ANSYS, MATLAB, and NASTRO. We are aware to keen about knowledge of the real time application, overhaul, aviation systems, maintenance testing. Our students take part in the internship in HAL, NAL, AIRBUS MAHINDRA, DRDO, and ISRO. Our department holds around 6 students in Anna university ranking this far. Not only had ours alumni placed in BOEIGN, AIRBUS, HAL, AMAZONS, and various airport also

The department has a group of 7 well qualified and experienced Professors and dynamic young staff who hold their master degrees in their area of interest from renowned institutions. Among them, one of the faculties has obtained their Ph.D. and one other are now pursuing. Faculties published papers in their research domains.

The department has full-fledged and well-established laboratory facilities. Aerodynamics laboratory has equipment like Pulse jet engine and ram jet engine apart from equipment required for curriculum. Aero engine lab has all type of engine; Propulsion Laboratory is fully equipped with list of equipment as prescribed by the affiliated university. In the CAD/CAM, latest versions of CATIA, SOLIDWORKS, ANSYS, and CNC Software are available for students. Internet facility has been enabled in many computers for the faculty to effectively search for useful study materials. Aircraft system laboratory is provided with Cessna aircraft with aviation instruments.

The department has well equipped class rooms with necessary teaching aids viz., LCD projectors in order to enable power point presentations for specific/necessary lecture topics. NPTEL videos. There are also OHP available for presentations.

The department has signed MoU with the LEADING organizations/industries in the city. The nature of MoU is enriching technical education imparted to students, adoption of advanced technology for design solutions, regular exchange of resource and knowledge and joint programmers.

In the view of enhancing the practical knowledge of the students in-plant trainings and Industrial visits are arranged regularly in and around Coimbatore. In order to enable students easily face the placement procedures and interview processes, they are being trained on the soft skills enhancement, and inter – personal programmers namely Value-Added Programmers along a part of their curriculum.

Principal's Message:



It gives me immense pleasure to welcome you all to NIT, an eco-friendly campus that strives with a goal to attain excellence by empowering students with sound knowledge, wisdom and experience. Our strength lies in creating pleasant ambience with an excellent infrastructure, qualified and experienced faculty commitment to personal care, motivation to excel in academic, extra-curricular activities and continuous interaction with industry. Over the past 10 years the college witnessed a string blend of state of the art infrastructure and dedicated human resource committed to provide professional education with trust on creativity and innovation. The motivating environment in NIT for knowledge, assimilation, generation and dissimulation with a sense of social responsibility, human values and concern for environment has curved anieche for itself among the best technical institutes.

“A desire can change nothing, a decision can change something, but a determination can change everything”

Be committed with strong determination to learn and reach new horizon, NIT will shape you for a successful and rewarding career.

Vision of Department

To mould the aeronautical students to achieve the excellence in the field of technical education, research, innovation, entrepreneurship and industry related development to meet the challenges in society.

Mission of Department

- To impart high quality technical education and unique interdisciplinary experiences.
- To promote research, innovation and entrepreneurship culture among students for the benefits of society.
- To collaborate with industry and institute for technology up-gradation.

From the Editor's desk:



Dear students,

Hearty welcome to the newly launched AERO Dept's first issue of the News Letter for the academic year 2021-2022.

The objectives of the news letter is to mainly focus on the

- Achievements of the Students and Faculty members from the AERO dept in Curricular, Co-curricular and Extra-curricular Activities.

I congratulate all my Team Members for their constant efforts in launching this NewsLetter. We are very Grateful to our Management and Principal for their Support and Encouragement.

Student Editorial Members- Deepin Raghul.A.J & Rahul.S

Academic performance of the students

Students Achievements			
Category of Award	IV Year	III Year	II Year
	1.Balamurugan.M	1.A.Anusriya	1.Kavin Kishore V
100% Attendance	2.Sarulatha .S	2.K.Prakash	2.Ajithkumar R
			3.Raman R
Best Outgoing	1.Deepin Ragul .Aj	Nil	Nil
	2.Amla K Roy		
Best Student		1.S.Ragul	1.Syed Unnisha A
		2.Keerthi MB	2.Peetha Akash
High CGPA	1.Amla K Roy	1.Rahul S	1.Peetha Akash
Best Library Utilization	1 G.Mohan Raj	1 Deepak R	1 Dili Babu S
	2 Ashnamaria Biju	2 Dharmadurai CM	2 Ajithkumar R
			3.Andrew Annu Eapen
Best Student Curricular Activity	1.A.Konsa Jorin	1.Ep Aparna	1.Syed Unnisha A
	2.K.Pavithra	2.T.Vaishnavi	2.Peetha Akash
	3.P.H Haneefa Firose	3. Gopi Shankar P	
Best Student Extra Curricular Activity	1.P.Aravind Perumal	1.R.G.Vishnu	1.Samithra Sree K.S
	2.K.Rohith Kumar	2.Vishal R	2.Pothiyalagan P
	3.K.Rakshana		3.Gokulakannan D
	4.Dilipraj .R		

University Rank Holders:

1. Apoorva .U -1 st Rank
2. Gayathri .R – 2 nd Rank
3. Vignesh .C -9 th Rank

4. Akash Kumar .A – 21 st Rank

5. Janani Shree .P – 23 rd Rank

Valued Added Programs

1. Small Unmanned Ariel Vehicle (UAV)

Research and Development

Funds from Government And Non Government Agencies:

Prof.R.Allocious Britto Rajkumar	Received fund of Rs. 7,500/- for final year project from TNSCST.
Prof.R.Allocious Britto Rajkumar	Received Rs.2.5 lakhs from DST under NewGen Scheme.
Prof. Ramkumar AC	Received Rs.2.5 lakhs from DST under NewGen Scheme.

S.No	Name of Event/Program	Date	Coordinator
1.	GUEST LECTURE ON HVAC	18.11.2021	S. SATEESH KUMAR
2.	HANDS ON TRAINING ON WET LAYUP PROCESS	08.12.2021	R ALLOCIOUS BRITTO RAJKUMAR
3.	LOCAL INDUSTRIAL VISIT	10.12.2021	DR. SIVANESH PRABHU
4.	AWARENESS ON SUCCESSFUL ENTREPRENEURSHIP	13.12.2021	RAMKUMAR AC
5.	GUEST LECTURE ON R&AC	13.12.2021	S. SATEESH KUMAR

6.	DESIGN AND WORKING OF RC MODEL – PHASE I	14.12.2021	DR. SIVANESH PRABHU
7.	SEMINAR ON ASTRONOMY	16.12.2021	T. BANU
8.	BOOK REVIEW ON “WINGS OF FIRE”	20.12.2021	S. SRINIVASAN
9.	AWARENESS PROGRAM ON STUDY ABROAD AND OVERSEAS JOB OPPORTUNITIES	22-12-2021	DR. SIVANESH PRABHU
10.	AWARENESS PROGRAM ON ANSYS STK	21.03.22	RAMKUMAR AC
11.	ORIENTATION PROGRAM ON "LEARNING ENGINEERING THROUGH ACTIVITY PROGRAM" (LEAP)	23-03-2022	T. BANU
12.	TRAINING PROGRAM ON “SERVICE OF CESSNA AIRCRAFT”	23 Apr 22	T. BANU
13.	AERONAUTICAL ENGINEERING ASSOCIATION INAUGURATION	28 Apr 22	ALLOCIOUS BRITTO RAJKUMAR
14.	SEMINAR ON ROCKETS AND MISSILES	28 Apr 22	T. BANU
15.	INDUSTRIAL VISIT TO NAVAL AVIATION MUSEUM, GOA	12 May 22	DR. SIVANESH PRABHU
16.	TWO DAYS NATIONAL LEVEL WORKSHOP ON “BUILDING A DRONE-QUADCOPTER”.	30,31 May 22	T. BANU
17.	NATIONAL LEVEL TECHNICAL SYMPOSIUM- VOYAGER 2022	6-Jun-22	RAMKUMAR AC
18.	PAPER PRESENTATION	6-Jun-22	DR. SIVANESH
19.	CAD MASTER	6-Jun-22	RAMKUMAR AC
20.	PARA GLIDER	6-Jun-22	DR. T. MANIKANDAN
21.	TECHNICAL QUIZ	6-Jun-22	BANU T
22.	WATER ROCKETRY	6-Jun-22	DR. SARAVANAN

23.	PROJECT EXPO	6-Jun-22	ANAND R
24.	POSTER MAKING	6-Jun-22	RAJAN AS
25.	MOBO PHOTOGRAPHY	6-Jun-22	DR. SIVANEESH
26.	PAPER PLANE	6-Jun-22	BRITTO
27.	CONNECTIONS	6-Jun-22	R ANAND
28.	TREASURE HUNT	6-Jun-22	BALTHILAK A

Papers Publication in Journals

1. S. Srinivasan, S. Thirumurugaveerakumar, N. M. Raffic, R. B. Kanna” Process parameter optimization for cutting tool-workpiece interface temperature during end milling of Aluminium alloy 6061 using Taguchi's experimental design”, Sustainable Engineering Science and Research Journal.,Vol 01, no 1, May 2022, Page: 21-25, <https://doi.org/10.5281/zenodo.6554730>
2. Wasim Khan, M., Elayaperumal, A., Sivanesh Prabhu, M., S. Arulvel” Effect of compaction pressure on the physical, mechanical and tribological behaviour of compacted crab shell particles prepared using uniaxial compaction route” Journal of Materials Engineering and Performance – Springer Publication SCI Indexed 1-15 2022.
3. Karthikeyan.J 1 Banu.T 2 Dr.K.Ganesh Babu 3 Royson Varghese C R 4 “NUMERICAL SIMULATION OF SHOCK INDUCED MIXING OF FUEL AND AIR IN THE SCRAMJET COMBUSTOR” Vidyabharati International Interdisciplinary Research Journal (Special Issue) ISSN 2319-4979

Conferences Presented

1. Dr. S.Thirumurugaveerakumar , S.Srinivasan , N.Mohammed Raffic Dr.K.Ganesh Babu,“Experimental Investigation on Turning Process Parameters for AA7075 by

- Taguchi's Orthogonal Array", International Conference on Materials Research in Science and Engineering (KMRSE'21) 23rd to 25th July 2021 (Virtual Mode). (Accepted for Publication with AIP Conference Proceedings, SCOPUS Indexed).
2. Ramkumar AC, Sivanesh Prabhu M, Manikandan T "Design and Experimental investigation of solar dryer assisted with waste heat recovery system", Development in Organic-Inorganic Halide Perovskite Materials and its Modern Applications, 2021.
 3. Manikandan T, Ramkumar AC, Sivanesh Prabhu M, Madhusudan nayak C "Study of Mechanical Behaviour of Glass Fibre Composites on Adverse Environmental Conditions", Development in Organic-Inorganic Halide Perovskite Materials and its Modern Applications, 2021.
 4. Sivanesh Prabhu M, Manikandan. T, Ramkumar AC, Madhusudan Nayak C "A study on microstructural, mechanical and tribological behaviour of Friction stir processed AA6082/CaCO₃ composite", Development in Organic-Inorganic Halide Perovskite Materials and its Modern Applications, 2021.
 5. Ramkumar AC, Manikandan T, Sivanesh Prabhu M "Investigation of Photovoltaic Panel with Automated Cooling and Cleaning System", Development in Organic-Inorganic Halide Perovskite Materials and its Modern Applications, 2021.
 6. Ramkumar AC, Sivanesh Prabhu M, Manikandan T "Design and Experimental investigation of solar dryer assisted with waste heat recovery system", Development in Organic-Inorganic Halide Perovskite Materials and its Modern Applications, 2021.
 7. Mr. Balthilak A, Mr. Ramkumar AC, "Automation of Shops using Robots", 7th International Conference on Science, Engineering and Technology, on 28.04.2022 to 29.04.2022 organized by Nehru Institute of Engineering and Technology, Coimbatore
 8. Mr. Balthilak A, Mr. Srinivasan S "Analysis of robot arming using finite element Analysis", 7th International Conference on Science, Engineering and Technology, on 28.04.2022 to 29.04.2022 organized by Nehru Institute of Engineering and Technology, Coimbatore
 9. Mr. Balthilak A, "CFD analysis of application of phase change material in automotive climate control system", 7th International Conference on Science, Engineering and Technology, on 28.04.2022 to 29.04.2022 organized by Nehru Institute of Engineering and Technology, Coimbatore
 10. Mr. Srinivasan S, Mr. Ramkumar AC, "BIOMECHANICS ANALYSIS AND OPTIMISATION OF INSTEP KICKING: A CASE STUDY TO MALAYSIAN FOOTBALLER" 7th International Conference on Science, Engineering and Technology,

on 28.04.2022 to 29.04.2022 organized by Nehru Institute of Engineering and Technology, Coimbatore.

11. Mrs.Banu.T, Keerthi.M.B, Anusriya.A , “Improvement in Aerodynamic Performance of an Airfoil Using Leading Edge Rotation” CSIR Sponsored Two Days National Level Conference on development in Organic-Inorganic Halide Perovskite Materials and its Modern Applications on 22.12.2021 to 23.12.2021 organized by Nehru Institute of Technology, Coimbatore.
12. Banu.T, Karthikeyan.J ,Aparna.E.P , Vaishnavi.T “Design Optimization of Morphing Airfoil”CSIR Sponsored Two Days National Level Conference on development in Organic-Inorganic Halide Perovskite Materials and its Modern Applications on 22.12.2021 to 23.12.2021 organized by Nehru Institute of Technology, Coimbatore.
13. T.Banu (Assisant Professor) S&G P.Gobi Shankar, T.Vaishnavi, E.P.Aparna “Recent Developments in Airport Planning” International Aviation Conference 2022 on Sustainable growth and Development in Aviation Industry on 12 th Apr 2022 organized by Nehru College of Aeronautics & Applied Sciences, Coimbatore.

Patent Publications

1. S. Srinivasan published patent titled “AN IOT BASED AUTOMATED DRIP IRRIGATION SYSTEM BY PREDICTING WEATHER CONDITION AND WATER REQUIREMENT IN THE FIELD OPERATOR” , Patent application number: 202241005055, Date of filing: 31/01/2022,Publication no and Date: 05/22, Dt. 04-02-22.
2. S. Srinivasan published patent titled “DESIGN OF COCONUT HUSK REMOVER WITH SHELL CUTTER AND SCRAPER” International application no: PCT/IN2020/050808, Date of filing : 21 September 2020, International Publication no and Date: WO/2022/003705 , 06.01.2022
3. S. Srinivasan published patent titled “AN INTELLIGENT PHARMACEUTICAL ASSISTANCE SYSTEM”,Patent application number: 202141040360, Date of filing: 06/09/2021,Publication no and Date: 39/21, Dt. 24-09-21.
4. S. Srinivasan published patent titled “SMART IRRIGATION SYSTEM USING INDUSTRIAL INTERNET OF THINGS (IIOT)”Patent application number: 202141023019, Date of filing: 24/05/2021, Publication no and Date: 24/21, 11-06-21.

5. Dr. Sivanesh Prabhu M, Mrs.T.Banu ,Mr. Balthilak published patent titled “IIoT’s Based Remote Monitoring And Automatic Pesticide Spraying Using Agriculture Drones”, 202241000275 A, 04/02/2022.
6. Mrs.T.Banu, published patent titled BUSINESS INTELLIGENCE FOR THE IMPROVISATION OF AIRLINES KEY PERFORMANCE INDICATOR(KPIS) Patent application no: 202241020410 A Date of filing : 05/04/2022 Publication Date: 29/04/2022 .
7. Mrs.T.Banu , published patent titled “ARTIFICIAL INTELLIGENCE AND ROBOTIC ENABLED FUTURE GENERATION OF SMART SATELLITES” Patent application number: 202131062308 A Date of filing: :31/12/2021Publication Date: 04/02/2022

Contribution as Resource person

1. S. Srinivasan acted as session Judge at International conference on “Sustainable growth and development in aviation industry” at Nehru College of Aeronautics and Applied Sciences”, at Nehru Aeronautics and Applied sciences, Coimbatore , 12-04-2022

Faculty Development Program

1. Mr. Balthilak A attended FDP on ”Advancement in Aerospace Materials, Manufacturing, Testing and Characterization” from 24.1.2022 to 28.1.2022 conducted by Department of Aeronautical Engineering, Hindustan college of Engineering and Technology, Coimbatore.
2. Mrs. T.Banu attended ATAL FDP entitled “Conceptual and Practical Knowledge sharing and Training Sessions on Conceptual Fluid Dynamics” from 14th June to 18th June 2021 conducted by Department of Aeronautical Engineering, Nehru Institute of Engineering and Technology, Coimbatore.
3. Mrs. T.Banu attended Six Days FDP entitled “Machine Tools Building, Finishing Processess and Export Management ” from 19.04.2021 to 24.04.2021 conducted by Department of Mechanical Engineering ,Karpagam Academy of Higher Education.

