

Mangalore Institute of Technology and Engineering
(ISO 9001:2015 Certified Institution)
Department of Aeronautical Engineering

Different activities conducted during the Academic year 2018-19

| SL. No | Date | Event | Topic | Resource person with designation |
|--------|--------------------------|-----------------------------------|---|---|
| 1 | 8-09-18 | Freshers welcome & Technical Talk | Challenges and process in a fighter Aircraft development – emphasis on LCA Navy | Mr. CD Balaji Chairman Centre of Excellence in Aerospace & Defense |
| 2 | 18-09-18 | Alumni talk | Entrepreneurship development | Mr. Uday MR Accellery Airspace Pvt ltd Bangalore |
| 3 | 19-09-18 to 20-09-18 | Workshop | 3D printing workshop for 3 rd sem students | Mr. Uday Mr. Sanjay Dutt Mr. Venkatram Accellery Airspace Pvt ltd Bangalore |
| 4 | 22-09-18 to 23-09-18 | Workshop | 3D printing workshop for 5 th sem students | Mr. Uday Mr. Sanjay Dutt Mr. Venkatram Accellery Airspace Pvt ltd Bangalore |
| 5 | 24-09-18 to 25-09-18 | Workshop | 3D printing workshop for 7 th sem students | Mr. Uday Mr. Venkatram Accellery Airspace Pvt ltd Bangalore |
| 6 | 26-09-18 to 27-09-18 | Workshop | Vayuyana- RC Plane Modelling | Mr. Srinath R , Mr. Manas Jain and Team AERINO |
| 7 | 25-08-18 | Space Quiz | Space Quiz | Dr. Ganesh Aithal Dr. Neelakanta V Londe |
| 8 | 16-2-19 | Technical Talk | Metal Forming | Mr. Manjunath Gaviyappa , Group Project Manager, HCL, Bangalore |
| 9 | 11/04/2019 to 13/04/2019 | Workshop | 3- Day Workshop on Aerospace and Defense | Dr. K Badari Naryana Former Scientist ISRO and Team from CoE Aerospace and Defence VTU, Bangalore |

Student Participation in competition

| Sl No | Date | Event | Reward/ Prizes |
|-------|--------------------|--|---|
| 1 | 5-10-18 to 7-10-18 | National Students Space Challenge in IIT-Kharagpur .Students participated in Hoverpod, Water rocket and T-shirt designing competitions | 1 st and 2 nd Place Hoverpod |
| 2 | 5-09-18 | International Institute of Aerospace Engineering And Management Bangalore. Bangalore Pitch and Roll and Water Rocket competition | 1 st place in RC INNOVATION 2 nd and 3 rd place in WATER ROCKET |



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| Industrial Visits | | |
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| 1. | 24-09-18 | Industrial visit to Lamina Foundry Nitte for 3 rd Semester Students. |
| 2 | 08-02-19 | Center for system design – NITK Surathkal for 6 th Semester Students |

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| 1 | 8-09-18 | Freshers welcome & Technical Talk | Challenges and process in a fighter Aircraft development – emphasis on LCA Navy | Mr. CD Balaji Chairman Centre of Excellence in Aerospace & Defense |
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About Resource Person:

Mr. C. D. Balaji, an Outstanding Scientist, the Retd. Director of the Aeronautical Development Agency (ADA), Chairman of Centre of Excellence in Aerospace & Defense and Programme Director of the Light Combat Aircraft (LCA). Commodore Balaji holds a BE in Mechanical Engineering and a Master's degree in Aerospace Engineering from the Indian Institute of Science, Bengaluru. Commissioned into the Indian Navy's engineering branch in September 1978, he has specialized in the Naval Aviation Arm.



Mr. C. D. Balaji delivering technical talk

The chief guest shared his experience of journey in becoming the Programme Director of the Light Combat Aircraft (LCA), the challenges faced by him and his team in building a fighter aircraft with the prime example being the LCA Tejas. India's first indigenously built fighter



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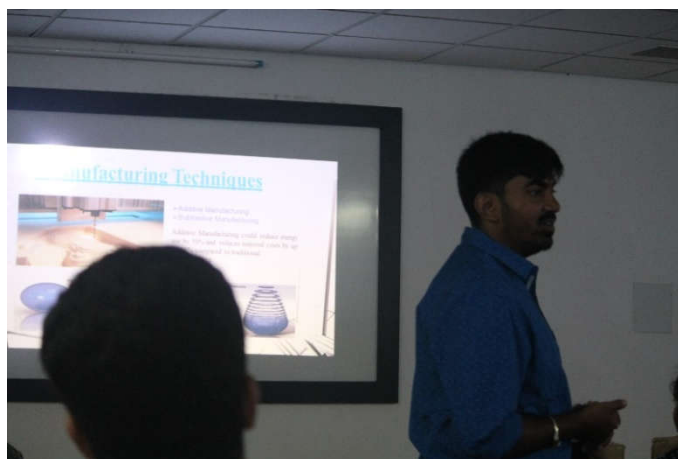
aircraft. He took us on a journey, from the inception of Tejas to its final test at Goa offshore test facility. The students were intrigued by the sheer amount of problems put forward by the orator that was faced by the team in building the first kind of aircraft that had dual functionality of landing on an aircraft carrier and as well as for the Indian army. As Mr. Balaji had previously been a naval officer, he gave an in-depth detail of the difference in scenarios of landing on land and the mortally taxing task of landing on a carrier, which was also the reason why landing on a carrier is called aircraft retrieval rather than just landing. He gave cursory information of the different software used while designing the fighter, the insufficiency of data for doing so and also the complications due to the unavailability of advanced software that early in the early stages of advancement in the computer-aided drawing. At the bottom line, he unraveled to the unquestioned story behind the building of a successful jet fighter namely LCA Tejas.

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| 2 | 18-09-18 | Alumni talk | Entrepreneurship development | Mr. Uday MR Accellery Aerospace Pvt ltd Bangalore |
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About Resource Person:

Mr. Uday M R Co-founder Accellery Aerospace Pvt ltd Bangalore is an alumni of the institute. He graduated Aeronautical engineering in the year 2014.



Mr. Uday M.R delivering a talk on Entrepreneurship

Mr. Uday M R shared his experience on being an entrepreneur. He mentioned that Entrepreneurship development is the process of improving the skill set as well as the knowledge of the entrepreneurs. The major objectives this talk is to strengthen the entrepreneurial quality, i.e. motivation or need for achievement, Analyze environmental set up relating to small industry and small business, Select the product, Formulate proposal for the product, Understand the process and procedure involved in setting up a small enterprise, Know the sources of help and support available for starting a small scale industry, Acquire the necessary managerial skills required to run a small-scale industry, Know the pros and cons in becoming an entrepreneur, Appreciate the needed entrepreneurial discipline.

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| 4 | 22-09-18 to 23-09-18 | Workshop | 3D printing workshop for 5 th sem students | Mr. Uday Mr.Sanjay Dutt Mr. Venkatram Accellery Aerospace Pvt ltd Bangalore |
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About Resource Persons:

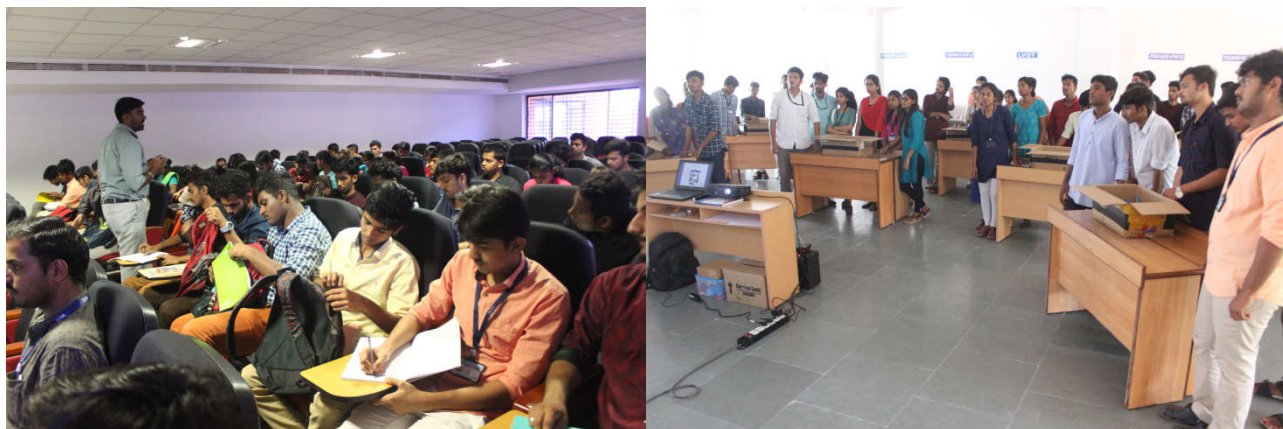
Mr. Sanjay Dutt, Mr. Venkatram and Mr. Uday M R Co-founders Accellary Aerospace Pvt Ltd Bangalore.



Inaugural programme of two day workshop on 3D printing

About the Event:

A two-day workshop on the 3-D printing was organized under the Aeronautical Department of Mangalore Institute of Technology and Engineering College and Accellary Aerospace Organization. Mr. Ajit Kumar Asst. Prof welcomed the resource persons. Mr. Venkatram, co-founder of Accellary Aerospace gave an introduction about the 3-D printing technology for the program. The 3-D printing technology is currently revolutionizing the manufacturing industry and has been a significant place in various sectors such as aerospace, medical and architecture.



Students during technical session and hands on training

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The two-day workshop attended by students of 3rd, 5th and 7th semester they printed their 3-D printing pattern during the workshop. The 3-D printing technology is currently revolutionizing the manufacturing industry and has been a significant place in various sectors such as aerospace, medical, and architecture.



Students during the workshop

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| 6 | 26-09-18 to 27-09-18 | Workshop | Vayuyana- RC Plane Modelling | Mr. Srinath R , Mr. Manas Jain and Team AERINO |
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About Resource Persons:

Dr. G L Easwara Prasad, Principal MITE, Dr. Ganesh Aithal Dean Research, Dept. of Computer Science and Engineering MITE, Mr. Srinath R, Assistant Professor Dept. of Aeronautical Engineering MITE, Mr. Manas Jain and Team AERINO.



Vayuyana workshop on RC Plane modeling

About the Event:

A workshop was conducted by the Department of Aeronautical Engineering of the Mangalore Institute of Technology and Engineering on RC aero modelling. The workshop was conducted by a team of students of the aeronautical engineering with the name Team AIREINO.

The workshop started with a formal function presided by the Principal of MITE, Dr. G L Easwara Prasad and the Dean of Research, MITE, Dr. Ganesh Aithal. A brief introduction was given by the team captain, Sudarshan about the founding of the team AIREINO and its achievements.

The workshop kick-started by two technical sessions by the faculty coordinator of AURA, Mr. Srinath who gave an introduction to the RC industry, it's application and it's booming growth. The second technical session was taken by Mr. Manas Jain who gave the participants a wide knowledge about the structure of an aircraft wing.

The afternoon session started by the team AIREINO describing the various parts and specifications of the RC aero model. The two day workshop comprised of the participants building their own RC Aero model and putting their models in competition of flying them and to bag the first place.

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| 7 | 25-08-18 | Space Quiz | Space Quiz | Dr. Ganesh Aithal Dr. Neelakanta V Londe |
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SPACE QUIZ was organized by the AURA on 25th August 2018, in association with IIT-Kharagpur's Kalpana Chawla Space Technology Cell and ISRO, Bengaluru. A Total of 90 students from all the departments of the college participated in groups of three. The contest comprised of 4 tiers, with both written and verbal type of quizzing.



Space Quiz winners receiving certificates

A Total of 39 Students advanced into the Second phase of the quiz. The final round was competed between 4 teams of three different disciplines. The competition was judged by a panel of judges from viz. Dr. Ganesh Aithal, Dean-R&D; Prof. Neelkanth V L, Dept. of ME; Dr. G. Purushotham, Prof and Head, Dept. of AE. Nikhil & Team (Aeronautical Engineering) and Mourya Raj & team (Dept. of Mechatronics) stood in the top two positions, and will further represent MITE in the SPACE QUIZ 2018 to be held at IIT-Kharagpur during the National Students' Space Challenge 2018

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| 8 | 16-2-19 | Technical Talk | Metal Forming | Mr. Manjunath Gaviyappa , Group Project Manager, HCL, Bangalore |
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Mr. Manjunath Gaviyappa , Group Project Manager, HCL, Bangalore has visited Department of Aeronautical Engineering as an Technical Expert to conduct a session to 6th Semester students on 16 February 2019. Mr. Ajith Kumar Assistant Professor, Department of Aeronautical Engineering, welcomed Mr. Manjunath. He gave detailed deliberations on metal forming and different molding processes in industries. He discussed the fundamental aspects of Extrusion processes, Sheet metal forming and High Energy rate forming techniques.

Further through a video he demonstrated the sheet metal forming, how the raw material is converted in to finished product, processes involved, and the Machines used etc. Talk was concluded with question and answer session in which he guided students on how equip multiple skills to enhance employability. He also interacted with Department Placement coordinators and faculty members on how to train the students to be industry ready and what industry expects from fresh engineering graduates.



Mr. Manjunath Gaviyappa addressing the students

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A 3 day workshop was organised for the Students of 4th and 6th Semester of Aeronautical Engineering, conducted by the Center of Excellence in Aerospace and Defence; Bengaluru. Dr. K Badari Narayana, Former Scientist ISRO, Senior Consultant at Ornnova Information Technology and services delivered technical sessions on Aerodynamics, Aircraft Structures, Aircraft Materials. Mr. Nicky Harris, COE, Aerospace & Defence VTU, introduced the software 3D experience to students, in which he illustrated the part design module of 3D experience (CATIA). Mr. Mandar and Mr. Hemanth took a Hands on session on Finite Element Analysis and DELMIA Digital Manufacturing respectively. Mr. Chethan S Rao gave a hands-on session on system engineering. The workshop was concluded with the final session by Mr. Hemanth on an electrical harness.

Student Participation in competitions

| Sl No | Date | Event | Reward/ Prizes |
|-------|--------------------|--|--|
| 1 | 5-10-18 to 7-10-18 | National Students Space Challenge in IIT-Kharagpur .Students participated in Hoverpod, Water rocket and T-shirt designing competitions | 1st and 2nd Place Hoverpod |



Students receiving award in National Students Space Challenge in IIT-Kharagpur

A National level competition was held under the NSSC- National Students Space Challenge in IIT-Kharagpur on 5th, 6th and 7th of October 2019.

The students of the Aeronautical Engineering took part in two competitions namely the "Hoverpod" and "Water rocket". Two teams participated in both the competitions.

The team comprising the 3rd year students Dacklen Sundeep D'Souza, Savi Shetty, Tejaswini, Manish Salian and Clavin Rodrigues secured the first place in the 'Hoverpod' competition.

The team comprising of the 3rd year students Arpith Jain, Nirahankar, Pooja, Ashwatharama Prabhu and Glenn Shannon D'Souza secured the second place.

The same two teams took part in the 'water rocket competition.

Clavin Anton Rodrigues took part in the T-shirt designing competition too.

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| 2 | 5-09-18 | International Institute of Aerospace Engineering And Management Bangalore. Bangalore Pitch and Roll and Water Rocket competition | 1 st place in RC INNOVATION 2 nd and 3 rd place in WATER ROCKET |
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Students receiving award in International Institute of Aerospace Engineering and Management Bangalore

Team “AIREINO” has participated in the event which was held on 5th October 2018 in the ‘INTERNATIONAL INSTITUTE OF AEROSPACE ENGINEERING AND MANAGEMENT’ Bangalore.

Two teams of team AIREINO are participated in the ‘PICH AND ROLL’ and ‘WATER ROCKET’ event.

Achievements are:

First place in RC INNOVATION (PITCH AND ROLL)

Second place in WATER ROCKET

Third place in WATER ROCKET

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Industrial Visit

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| 1. | 24-09-18 | Industrial visit to Lamina Foundry Nitte for 3 rd Semester Students. |
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Third Semester Students industrial visit to Lamina Foundries

Lamina Foundries Limited is a public limited company belonging to Lamina group of Companies, commissioned in the year 1983. The company produces cast iron castings such as motor bodies, flywheels, valve bodies etc. to cater to the needs of domestic customers. The company has entered into the export market since 1990 by exporting machined Brake Drums to Germany. The Company possesses in-house machining facility including CNC machining. Manufacture of Automobile / Industrial Grey Iron and S.G. Iron castings and machining of casting to customer specifications. Students third semester got exposure on different foundry process involved in lamina foundries.

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| 2 | 08-02-19 | Center for system design – NITK Surathkal for 6 th Semester Students |
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Sixth Semester Students visit to Center for system design – NITK Surathkal

A one day workshop was conducted for sixth Semester students on Virtual Labs and Remote triggered lab at Center for system design – NITK Surathkal. Professors and Research scholars from Center for System Design addressed technical session and practical sessions on Virtual labs, Remote triggered lab, 3D Printing, Laser cutting, Thermal Imaging and RC Modeling.