



## Centre of Excellence in Aerospace & Defence (CEAD)



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The Aerospace and Defence industry in India is one of the fastest growing markets in the world. The Defence-manufacturing sector in India is also on the cusp of exponential growth given the focus of Government of India on indigenous manufacturing of Defence equipment. The growth of the sector depends heavily on the availability of industry ready engineers/professionals who can be leveraged for project deployment with minimal on-the-job training. Keeping this in view, the Karnataka Biotechnology & Information Technology Services (KBITS), a Government of Karnataka enterprise along with Visvesvaraya Technological University (VTU) in association with Dassault Systems India Pvt Ltd., is establishing the Centre of Excellence in Aerospace & Defence (CEAD) with the objective of skill development and providing industry with trained manpower to a thriving Aerospace industry in Bengaluru and other Aerospace hubs such as Belagavi in Karnataka.

The Centre of Excellence in Aerospace & Defence (CEAD), located at VTU, Regional Center Bengaluru, RHCS Layout Annapoorneshwari nagar, Nagarbhavi, Bengaluru, would train graduates and post-graduate engineering students on Aircraft and Aerospace Technologies.

The Centre will offer two certificate courses 1) One-month Foundation course and 2) Four-month Advanced course that would find acceptability within the aerospace industry. The Centre has been formally inaugurated and the courses are in progress. The CEAD has plans to upgrade into a Center which will deliver masters-level course over the next 3-5 years. VTU will channelize the students to the Centre from various engineering colleges affiliated to VTU in Karnataka.

The courses offered at Centre of Excellence in Aerospace & Defence (CEAD) are aimed at providing right mix of theory and laboratory exposure in state-of-the-art software tools and processes to the students such that at the end of the course, the students would come out with essential knowledge in air vehicle development. These courses will be delivered by Aerospace Industry experts.

Foundation course is aimed at providing a quick overview on Aircraft and Launch Vehicle development cycle. With this the students get perspective about various disciplines involved in Aircraft and Aerospace Technologies. Advanced courses are aimed at giving holistic experience in various disciplines of aerospace design and development, inclusive of aerodynamics, structures and general systems (Landing gear, Hydraulics, Fuel System etc).

## FOUNDATION COURSE IN AEROSPACE ENGINEERING (1 MONTH) :

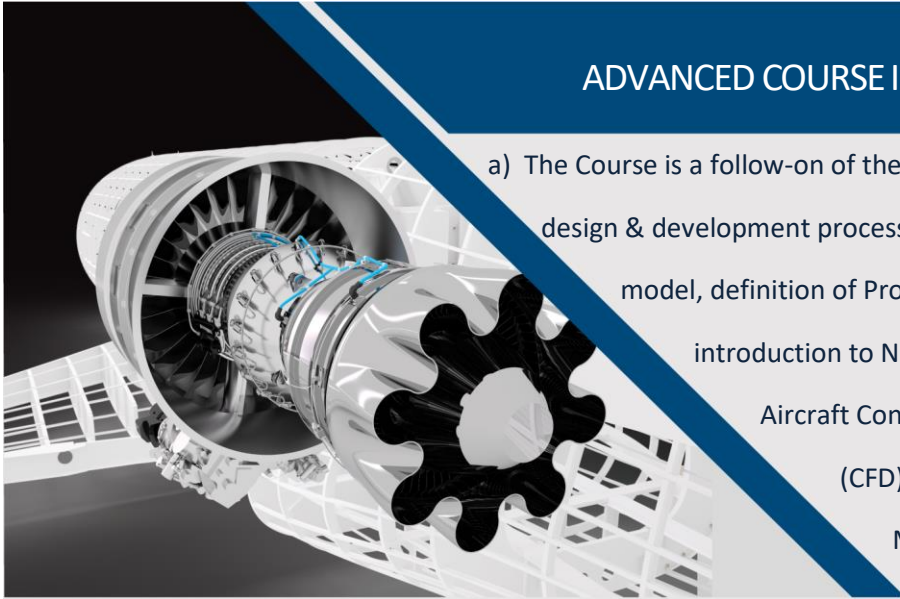
### Aerospace Engineering Fundamentals:

Overview in Aerodynamics/Flight Mechanics, Overview of space vehicle concepts | Launch Vehicles and Payloads, Structures | Configuration and Materials, Mechanical Systems | FCS/Hydraulics/Landing Gear/Environmental Control System, Reliability | Quality Assurance & Certification | Avionics | Electrical, Tooling & Manufacturing | Maintenance.



## ADVANCED COURSE IN AEROSPACE ENGINEERING (4 MONTHS) :

- a) The Course is a follow-on of the Foundation Course & is intended to provide a holistic design & development process right from requirement capture, building up a concept model, definition of Product Structure, configuration management, introduction to Numerical Master Geometry (NMG), Aerodynamics & Aircraft Configuration definition, Computational Fluid Dynamics (CFD), Ergonomic Studies, Structural design & analysis, Modelling & Simulation, Typical design of Landing Gear,



Electrical & Mechanical systems design, Manufacturing simulation, Assembly, Integration and Testing.

b) Provide exposure to Simulators.

c) Guest lectures on the latest topics by experts in the field.

Students can now enroll for the Foundation & Advanced Course modules, with a batch size of 25 no's. Foundation courses are ongoing and the Advanced Course is scheduled to commence in Nov 2017. Fee details would be published in the VTU website.

All students who are in the final year of Engineering, completed Engineering, M. Tech or have just passed out, (except Bio-technology & Architecture streams) Engineers who've been inducted into the Industry/ R&D establishments, Faculty in Aerospace Department in various educational institutions will be eligible for these courses.

For more details contact:

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