



ADVANCE AIRCRAFT MAINTENANCE



PROF. A.K. GHOSH
Department of Aerospace Engineering
IIT Kanpur



MR. VIPUL MATHUR
Department of Aerospace Engineering
IIT Kanpur

TYPE OF COURSE : Rerun | Core | UG
INTENDED AUDIENCE : B.Tech, M.Tech, Ph.D
PRE-REQUISITES : Aircraft maintenance
COURSE DURATION : 8 weeks (17 Aug'20 - 9 Oct'20)
EXAM DATE : 18 October 2020

INDUSTRIES APPLICABLE TO : DRDO, HAL, Boeing, Airbus, Bell, McDonnell Douglas, UAV Factory, Lockheed Martin, Cessna.

COURSE OUTLINE :

This course will cover Aircraft maintenance like overhaul, repair, inspection or modification of an aircraft or aircraft component. Maintenance includes such tasks as ensuring compliance with Airworthiness Directives.

ABOUT INSTRUCTOR :

Prof. A.K. Ghosh is a faculty of Aerospace Engg. Department of IIT Kanpur. He is also in-charge of the flight laboratory and unmanned aerial vehicle of IIT Kanpur. His research areas include system identification through flight tests using conventional and neural network based methods, design of aircrafts and airborne projectiles, supercavitation, unmanned aerial systems. Before joining IIT Kanpur, he worked as a scientist with Defense Research Development Organization (DRDO). He has published many peer reviewed journal papers and conference papers, guided 13 doctoral students, and 38 masters students. He is also a mentor of multiple aerospace start-up companies, and also been associated with major industry contributions of high speed low drag aircraft bomb, Pinaka Mk-I, 105mm sabot round for tracked vehicles, etc.

Mr. Vipul Mathur works as a Chief Engineer at Flight laboratory, Department of Aerospace Engineering, IIT-Kanpur.

COURSE PLAN :

- Week 01** : Introduction, Construction
- Week 02** : Performance, Lubrication system, Induction system
- Week 03** : Fuel system, Ignition System, Starting System
- Week 04** : Propeller, Maintenance
- Week 05** : Introduction, Inlet, Compressor
- Week 06** : Combustion, Turbine, Exhaust
- Week 07** : Fuel system, Lubrication system, Ignition System
- Week 08** : Starting, Thrust Augmentation, Material, Maintenance