ENGINEERING DRAWING AND COMPUTER GRAPHICS

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INTENDED AUDIENCE : Aerospace, Computer Science, Civil, Chemical,, Electronics, Information Technology, Mechanical, Bio-Technology, Production

INDUSTRIES APPLICABLE TO : Various automotive, petro and process industries:TATA Steel, TATA motors, SHELL, ONGC, Reliance, HAL, SAIL, BHEL, BARC, Airbus, GE, almost all the the manufacturing and process industries

COURSE OUTLINE :

All phases of manufacturing a product involve expressing basic ideas into graphical format widely known as engineering drawing and design. The present course prepares the students to learn the basics concepts involved in technical drawing skills and computer graphics.
During this course, the student will develop skills on:
- understanding of engineering drawings used in industries - computer design and development of 3D objects
- exposure to visual aspects of technical drawings

ABOUT INSTRUCTOR :

Presently, Prof. Rajaram Lakkaraju is working as a faculty member at the department of mechanical engineering, IIT Kharagpur since 2015. He has taught courses like fluid mechanics, computational methods for thermal engineers, mathematical methods, and two-phase flows and Engineering Drawing. He had graduated with a Ph.D. degree from the University of Twente, The Netherlands, and MS (Engg.) from JNCASR, India.

COURSE PLAN :

Week 1: Introduction to engineering drawings
Week 2:Conic sections
Week 3:Orthographic projections-I
Week 4: Orthographic projections-II
Week 5: Sections and sectional views
Week 6: Isometric projections
Week 7: Overview of computer graphics-I
Week 8: Overview of computer graphics-II
Week 9: Overview of computer graphics-III
Week 10: Overview of computer graphics-IV
Week 11: Design project-I
Week 12: Design project-II