



**MECHANICAL
ENGINEERING**

Applied Ergonomics

Type of Course	: New
Course Snapshot	: Elective / PG : Applies to all
Course Duration	: 30 hours / 12 weeks
Industry Support	: Industries related to Work Study and Management

COURSE OUTLINE:

"Ergonomics" is an applied scientific discipline that is concerned with how humans interact with the system/equipment/surrounding while performing tasks and other activities. Syllabus includes Introduction, Physical, Cognitive, Occupational and biomechanics aspect. The course syllabus is designed so as to cover work physiology, Engineering aspect of product, improvement in the cognitive capabilities so and so forth. Students will be able to correlate the understanding of this subject with their day to day activities and will be aware of concepts related to increase in the human efficiency.

INSTRUCTOR:

Prof. Shantanu Bhattacharya
Department of Mechanical Engineering
IIT Kanpur

Prof. Ankur Gupta
School of Mechanical Sciences
IIT Bhubaneswar



ABOUT INSTRUCTOR:

Prof. Shantanu Bhattacharya is currently a Professor at the Department of Mechanical Engineering at the Indian Institute of Technology Kanpur. Prior to joining IIT Kanpur he was associated with Suzuki Motors in the senior management level and has over 6 years of experience in various production capacities and positions.

Prof. Ankur Gupta is a faculty in the School of Mechanical Sciences, Indian Institute of Technology Bhubaneswar, India.

COURSE PLAN:

- Week 1 : Introduction and Overview of Ergonomics
- Week 2 : Anthropometry-I
- Week 3 : Anthropometry-II
- Week 4 : Physical Ergonomics-I
- Week 5 : Physical Ergonomics-II
- Week 6 : Tools and techniques for Ergonomics
- Week 7 : Cognitive Ergonomics-I
- Week 8 : Cognitive Ergonomics-II
- Week 9 : Cognitive Ergonomics-III
- Week 10 : Biomechanics
- Week 11 : Physical Environment and its importance
- Week 12 : Occupational Ergonomics and use of Ergonomics