PATRON

Prof. K. Umamaheshwar Rao
Director, NIT Rourkela

COURSE COORDINATORS

Prof. Mohammed Rajik Khan
is a Professor and former head, Department of Industrial Design, National Institute of Technology, Rourkela, Odisha, India. He received his B.E. degree in Mechanical Engineering from Madhav Institute of Technology and Science (MITS), Gwalior, India, in 2001, M.Tech. in Mechanical Engineering from National Institute of Technology, Kurukshetra, India in 2006 and Ph.D. degree in Mechanical Engineering with specialization in CAD from the Indian Institute of Information Technology, Design and manufacturing (IIITDM) Jabalpur, MP, India, in 2011.

His current research interests include Innovative Product Design, Assistive Devices for Elderly, Physical Ergonomics, MSDs, Geometric Modeling, Bio-Mechanical, CAD, etc.

Ar. Julliet Pradhan
is an Assistant Professor (Ad Hoc)in the Department of Industrial Design, National Institute of Technology, Rourkela, India. She is a very experienced architect and designer with more than 12 years of experience in handling architectural live projects and academics. Her current research interests include Product Design,Humans-Centered Design, BioMimicry Design, Interaction Design, Interior Design, etc.

Dr. Kuppa Sampath Kumar
is an Assistant Professor (Ad Hoc) in the Department of Industrial Design, National Institute of Technology, Rourkela, India. He holds a Ph.D. in Industrial Design from NIT Rourkela, Odisha. His current research interests include Rotor Dynamics, Finite Element Analysis Methods, Geometric and Solid Modelling, Physical Ergonomics, etc.

RESOURCE PERSON

Industry Expert , who is from 3D Engineering Automation LLP, Pune, India,and is an experienced JACK and Human Simulation industrial trainer with vivid experience in handling CAD, Simulation and Finite Element Software.

About NIT Rourkela

NIT Rourkela is a Ministry of Education, Government of India funded premier national level institute of higher learning for engineering, science and technology located in the steel city of Rourkela, Odisha, India.The institute was established as Regional Engineering College Rourkela in 1961 and was elevated to a deemed university under the name of National Institute of Technology, Rourkela in the year 2002.

NIT Rourkela is ranked 16 in the NIRF Rankings 2023 of Indian Engineering Universities. Times Higher Education (THE) World University Ranking 2024 has placed NIT Rourkela in the rank band of 601-800 in Engineering and Technology (by subject). Also, ranked 59 in QS Southern Asia University Rankings, 2023

The main objective of the Institute is to produce quality Engineers and Scientists in Graduate and Post-Graduate levels in various branches of engineering and science. The institute with a lush green campus area of 650 acres has twenty departments, three academic centers and six service centers. The Institute has a very vibrant campus life with ten hall of residence for students, residential quarters for employees and two guest houses for visitors. The Institute has been consistently ranked among the best technical institutes in India. The Institute has been modernized by several foreign collaborative research projects. A very good number of sponsored research and consultancy projects are running at present.

ABOUT DEPARTMENT

The Department of Industrial Design aims to create the next generation Industrial designers and innovators who can provide innovative design solutions to the complex challenges faced by the industry and society. The Department offers a B.Tech and a M.tech program in Industrial Design. The Department has well qualified and experienced faculty, and good laboratory facilities. Currently, the Department is executing several consultancy and collabrative R&D projects with reputed industries and research organizations like DRDO, BRNS, ICMR, DST, SERB, etc. The Department also offers Ph.D programme in Industrial Design.

For details please contact
Principal Coordinator

Prof. Mohammed Rajik Khan
Professor, Department of Industrial Design,
National Institute of Technology Rourkela
Rourkela, Odisha-769008
Phone: 0661-246 2853 (O); 08763655770 (M)
E-mail: khanmr@nitrkl.ac.in

iNSERB DIA

Science and Engineering Research Board (SERB)

Sponsored

02 Days Workshop on

APPLIED SKILLS IN OCCUPATIONAL ERGONOMICS

December 21-22, 2023

Organized by

Department of Industrial Design

NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA
Rourkela, Odisha-769008

Overview

Occupational ergonomics is a science concerned with the "fit" between people and their work. It's a multidisciplinary perspective for promoting worker's sustainability and occupational wellbeing, safety and health through effective work design.

This 2-day, in-person workshop, provides guided practice to measure, analyze, and interpret physical exposures in a job. Siemens Tecnomatix Jack Software will be experienced for human-centered design, simulation and ergonomics. A hands on session to measure / capture human physiological measurements / movements during any occupational tasks exposure. Expert sessions/lectures on understanding the physical exposure measurements, case studies to demonstrate proficiency in the design process, risk assessment tools, risk assessment of musculoskeletal disorders (MSDs) in a simulated work scenario, etc.

Course Contents

Course participants will learn these topics through online/offline lectures and hands-on practical sessions on

- Jack's Interface
- Working with Humans
- Working with Objects
- Animation System Module
- Task Simulation Builder
- Motion capture (3D Electromagnetic Tracking Sensors)
- Physical exposure measurements
- Risk assessment of musculoskeletal disorders(MSDs)

Objectives

01 To enable students to develop and enhance skills for solving occupational ergonomic problems.

02 To enable participants to assess risk of musculoskeletal disorders (MSDs) and postural evaluation in a work .

03 To enable participants to integrate human factors and ergonomics principles into the planning, design and validation stages of your product design and development work.

Who can Participate?

- Students at all levels (BTech/BE/MSc/MTech/ME/PhD) or Faculty from academic institutions and technical institutions
- Professionals, Executives, engineers and researchers from automotive, industrial design,mechanical background
- Business school graduates with entrepreneurial interests in ergonomic / product design

The maximum number of participants for the course shall be limited to 35. (Participants will be selected on first-cum-first serve basis)

Registration/Course Fee (Non-refundable)

The participation fee for taking the course is as follows:

Participants from academic institutions:	₹ 1500 /-
Participants from industry:	₹ 3000 /-
For students*:	₹ 1000 /-

(*ID proof to be submitted)

The above fee includes all instructional materials, computer use for tutorials and assignments. The registration/course fee is to be paid by NEFT/RTGS to A/C No.: 10138951784, State Bank of India, NIT Rourkela Branch IFSC Code: SBIN0002109 in favor of 'Continuing Education, NIT Rourkela' .

Accommodation

Out station participants can be provided accommodation and boarding in the Institute Guest Houses inside the campus on direct payment as the Registration fee does not include lodging and boarding. Limited accommodation is available at the Institute Guest Houses which may be provided on first-come-first serve basis. Participants need to give prior intimation for Guest House booking, to the principal co-ordinator through email.The lodging (twin sharing) and boarding charges may range from Rs.1200/- to Rs.1600/- for the entire duration of the course. Participants may also arrange their own accommodation.

Hostel accommodation can also be provided on prior intimation. A nominal fee of Rs.500/-(+18%GST) approx. is to be paid on 'Continuing Education,NIT Rourkela' payable at Account: 10138951784 SBI NIT Rourkela, Campus. The details can be added in the google form.

REGISTRATION PROCESS

Institute registration process is an online process. All interested participants can register by filling the google form:
https://forms.gle/FgseyoiCGTtkN6ae8

He/she then may proceed for the course registration by filling out the registration form and paying the registration course fee.

Important Dates

- **Last date for receiving applications & course fee:** ~~December 10, 2023~~ **December 19, 2023**
- **Last date for Intimation to Participants:** ~~December 15, 2023~~ **December 20, 2023**
- **Course Dates: December 21 – 22, 2023**