

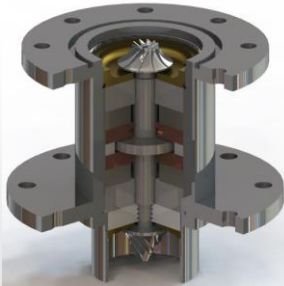


**TEQIP-III Sponsored One Week**

**Short Term Course On**

**Solid Modelling and Motion Studies Using SolidWorks**

**(SMMSS-2018) 18<sup>th</sup>-22<sup>nd</sup> June 2018**



**Organised by**

**Department of Mechanical Engineering  
National Institute of Technology Rourkela, Rourkela 769008 (Odisha)**

**Coordinator: Prof. Suraj Kumar Behera**

Department of Mechanical Engineering

National Institute of Technology, Rourkela, Odisha, India, 769008

## **INTRODUCTION TO THE PROGRAM**

Three-dimensional design technology helps to improve the design process that in turn benefits all manufacturing business. Manufacturers find that migrating from 2D to 3D tools makes design work more efficient and accurate, producing better overall design quality and fewer errors. Exploration of new design ideas becomes easier because engineers don't have to spend time making new 2D drawings to look at design alternatives. The use of 3D tools also can help communicate concepts to a diverse audience, without sacrificing tried-and-true modes of communication with suppliers and partners.

SolidWorks helps the designer and researchers make changes to designs quickly, solve design problems, and economically construct products and detect errors early in the program. SolidWorks motion study and simulation is an efficient analytical tool that allows the designer to visualize product behaviors under different operating situations and conditions. SolidWorks is simple to learn, and this course is designed for the beginners. This program focus to provide the skill to create 3D models, Assemble them, projection views and motion study.

## **IMPORTANT DATES**

Last date for receipt of application: **08<sup>th</sup> June 2018**

Last day of notification about selection: **11<sup>th</sup> June 2018**

Only **20** number of outstation participants will be selected on the **first-cum-first-serve** basis. Selected candidates will be informed by email. Complete information for communication must be necessarily provided in the registration form.

## **CONTACT DETAILS**

For any clarification, please contact

**Prof. Suraj Kumar Behera**

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National Institute of Technology, Rourkela  
Odisha, India, 769008

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Rourkela 769008 (Odisha)

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## ABOUT NIT ROURKELA

The National Institute of Technology, Rourkela was founded as the Regional Engineering College, Rourkela on 15<sup>th</sup> August 1961. The institute was declared as National Institute of Technology with Deemed to be University status on 26<sup>th</sup> June 2002 by the MHRD, Government of India. It is a prestigious institute with a reputation for excellence at both undergraduate and postgraduate levels. The institute is spread over 262 hectares of the lush green picturesque landscape, against a hilly backdrop, creating a tranquil environment. Rourkela is well connected to all the major cities of India by railway network and bus services. Rourkela railway station is approximately six km from NIT Campus.

## COURSE CONTENTS

The course will be carried out for consecutive five days with hand on training. Briefly, the course contents are given below:

Dates	Course Details
18-Jun-2018(Mon)	Introduction to SolidWorks, Basic modeling and its terminology, 2D sketching, Sketch entities rules that govern sketches, Sketch relations, Dimensions, Extrude, Assignment 1 ( Three exercises) and Discussion of assignments.
19-Jun-2018(Tue)	Choosing the sketch plane, Details of the part, Boss feature, Sketching on a planar face, Cut feature, View selector, Using the hole wizard, Editing tools, Drawing projection views, Changing parameters and Rebuilding model, Assignment 2 ( five exercises) and Discussion of assignments.
20-Jun-2018(Wed)	Linear and Circular Pattern, Reference Geometry, Mirror Patterns, Case Study: Handwheel, Revolved Features, Building the Rim, Building the Spoke, Edit Material, Mass Properties, File Properties, Shelling and Ribs, Assembly of Machine Components, Assignment 3 (One Exercise) and Discussion on assignment.
21-Jun-2018(Thru)	Drawing Sheets and Sheet Formats, Details and Sections, Broken Views and Sections, Case Study: Universal Joint, Bottom-Up Assembly, Mating Components, Talk by invited Expert, Introduction to Motion Study with example and Assignment 4( Two Exercise).
22-Jun-2018(Fri)	Motion Manager Interface, Motion Elements, Motor and Force Profiles, General Techniques, Animation, Assignment 5( One Exercise), Component Contact, Motion Study Plots, Motion Study Mates, Event-based Motion Analysis, Stress Analysis for Motion.

## WHO SHOULD ATTEND?

The participation in this course is open to faculty of AICTE recognized engineering college, researchers from the research laboratory, and engineers from industries. This program is also intended for research scholars pursuing Ph.D. at any academic institute/ research laboratory. The successful participants will be given participation certificate.

## ACCOMMODATION

Accommodation will be arranged for outside participants at NIT guesthouses (Twin sharing basis).

**The participants have to bear their traveling expenses.**

## PAYMENT DETAILS

- Academic faculties and students: 1500/-
- Professionals from Industry & R&D Units: 3000/-

The course fee includes course material, stay at the guesthouse (Twin Sharing Basis), breakfast, lunch, dinner, and refreshment during the program days. Participants (Faculty members and Ph.D. students) from NITRKL are exempted from paying registration fees.

The registration fee has to be paid through Demand Draft in favor of "**Director, NIT Rourkela**" (payable at **SBI, NIT Rourkela**). Demand draft along with filled in application form should be reach by speed post or registered post to Prof. Suraj Kumar Behera, Department of Mechanical Engineering, National Institute of Technology Rourkela, Rourkela-769008 (Odisha) on or before **08<sup>th</sup> June 2018**. The registration form is given on the last page and available at [www.nitrkl.ac.in](http://www.nitrkl.ac.in) for downloading.

**REGISTRATION FORM**  
**TEQIP-III Sponsored One Week Short Term Course On**  
**Solid Modelling and Motion Studies Using SolidWorks (SMMSS-2018)**  
**18<sup>th</sup>-22<sup>nd</sup> June 2018**  
**NIT Rourkela, ODISHA(INDIA)**

Name: .....

Designation:.....Department: .....

Organization: .....

Mailing Address: .....

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Mobile: .....

Email: .....

Accommodation Required (Yes/No): .....

Payment Details: Amount: Rs ...../-

Demand Draft No.: ..... Date: ...../...../2018

Bank: .....

Signature of Applicant

Date: ...../...../2018