

A SHORT TERM COURSE ON

EXPERIMENTATION AND DATA ANALYSIS FOR TENSILE (HIGH TEMPERATURE AND STRAIN RATE), FATIGUE, FRACTURE AND TRIBOLOGICAL PROPERTIES OF MATERIAL

ORGANISED BY



**DEPARTMENT OF MECHANICAL ENGINEERING
FACULTY OF ENGINEERING AND TECHNOLOGY
JADAVPUR UNIVERSITY
KOLKATA – 700032**

UNDER

**TWINING PLAN OF TEQIP – III PROGRAM
OF JADAVPUR UNIVERSITY**

VENUE

**DEPARTMENT OF MECHANICAL ENGINEERING
JADAVPUR UNIVERSITY
188, RAJA S. C. MALLICK ROAD
KOLKATA – 700032.**

COURSE CONTENT

The effective service life of a material and the nature of its failure depends on different loading and environmental conditions. Accurate modelling of the failure criteria emphasises the rigorous understanding of failure mechanism and the material behaviour under such conditions. This highly interactive short term course will provide class-room coaching and hand on experimentation for understanding the material behaviour and failure conditions for different loading and environmental conditions. Besides, the participants will learn the efficient handling of different sophisticated machines required for the study of Tensile, Fatigue, Fracture and Tribological behaviour of a material. The participants will also get acquainted with different methodology in order to extract required material parameter by using some basic data analysis software from the experimental raw-data.

COURSE COORDINATORS

Prof. Siddhartha Patra

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Prof. Sanjib Kumar Acharyya

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PARTICIPANTS

Maximum number of participants:	20*#
Eligibility:	Faculty Members, Research Scholars, and Post Graduate Students of relevant discipline
Refreshments during class-hours:	To be Provided to all
Residential accommodation:	To be arranged by the applicant

* including 5 from mentee (RTU and TIT) institutions

Acceptance of Registration is strictly on the 'First Come First Serve' basis and Faculty members will be preferred.

REGISTRATION

- A scanned copy of the filled-up application form (provided) should be sent to either of course coordinators e-mail, no later than the date and time mentioned below.
- In response, the selected participants will be sent an invitation for attending the course.
- Participants are requested to carry any his/her nationally recognised photo identification card during the course.

Registration fees:	Nil
Registration Begins:	20 May, 2018
Registration Ends:	31 May, 2018

COURSE TIMINGS

Inauguration:	11 June, 2018	9.00 a.m. -to- 10.00 a.m.
Classes:	11 June, 2018 -to- 15 June, 2018	10.00 a.m. -to- 05.00 p.m.
Feedback and Valedictory*:	16 June, 2018	10.00 a.m. -to- 1.00 p.m.

+ Certificates will be provided to the participants upon successful completion of the course.

ROUTINE OF CLASSES

Date	Time	Activity
11 June, 2018	09.00 a.m. – 10.00 a.m.	Inauguration
	10.00 a.m. – 1.00 p.m.	Lecture on Simple Tensile Test, Experiments and Data Analysis by Prof. S. Patra
	01.00 p.m. – 02.00 p.m.	Lunch
	02.00 p.m. – 05.00 p.m.	Lecture on Tensile Tests at High Strain Rate and Temperature, Experiments and Data Analysis by Prof. S. Patra
12 June, 2018	10.00 a.m. – 1.00 p.m.	Lecture on HCF and Experiments by Prof. S. Dhar
	01.00 p.m. – 02.00 p.m.	Lunch
	02.00 p.m. – 05.00 p.m.	Data Analysis for HCF by Prof. S. Dhar

ROUTINE OF CLASSES

Date	Time	Activity
13 June, 2018	10.00 a.m. – 1.00 p.m.	Lecture on LCF and Experiments by Prof. S. Dhar
	01.00 p.m. – 02.00 p.m.	Lunch
	02.00 p.m. – 05.00 p.m.	Data Analysis for LCF by Prof. S. Dhar
14 June, 2018	10.00 a.m. – 1.00 p.m.	Lecture, Experiments and Data Analysis for LEFM by Prof. S. K. Acharyya
	01.00 p.m. – 02.00 p.m.	Lunch
	02.00 p.m. – 05.00 p.m.	Lecture, Experiments and Data Analysis for EPFM by Prof. S. K. Acharyya
15 June, 2018	10.00 a.m. – 1.00 p.m.	Lecture on Tribology, Experiments and Data Analysis by Prof. P. Sahoo
	01.00 p.m. – 02.00 p.m.	Lunch
	02.00 p.m. – 05.00 p.m.	Lecture on Coating, Experiments and Data Analysis by Prof. P. Sahoo
16 June, 2018	10.00 a.m. – 12.00 p.m.	Interaction and Feedback
	12.00 p.m. – 1.00 p.m.	Valedictory Session and Distribution of Certificates
	01.00 p.m. – 02.00 p.m.	Lunch

INTERNAL RESOURCE PERSON

Prof. Prasanta Sahoo

Department of Mechanical Engineering,
Jadavpur University, Kolkata – 700032.

EXTERNAL RESOURCE PERSON

Prof. Sankar Dhar

Department of Mechanical Engineering,
Indian Institute of Engineering Science and
Technology, Shibpur – 711103.

Applicants may contact the course coordinators for any clarification.