



AICTE Sponsored online Short Term Training Programme (STTP) Series

on

**SMART MATERIALS AND SYSTEMS:
THEORY AND APPLICATIONS**

Series 2 of 3

**“Processing, Characterization
and Modelling of Smart
Materials and Systems”**

JANUARY 18–23, 2021

Six Day Short Term Training Programme

Sponsored by

AICTE, NEW DELHI

Under

AICTE Quality Improvement Schemes (AQIS)

Course Coordinator

DR. DILLIP KUMAR BISWAL

Organized by

DEPARTMENT OF MECHANICAL ENGINEERING

C.V. RAMAN GLOBAL UNIVERSITY

(Formerly C. V. Raman College of Engineering, Bhubaneswar)

BIDYANAGAR, MAHURA, JANLA, BHUBANESWAR,

ODISHA-752054

INTRODUCTION:

Smart Materials are defined as "Materials that can significantly change their mechanical, thermal, optical, or electromagnetic properties, in a predictable or controllable manner in response to their environment" as there are many possibilities for such materials and structures in the manmade world many innovations are happening in the field of material science that are enough smart to help human beings in an any of the ways like structural health monitoring, self-repair, defence and Space, Nuclear Industries, Reducing wastes. Smart materials also have many applications in different fields of medicine and engineering and the rise in demand for the smart materials is enough to believe that there is a great scope for the smart materials in the future.

The idea of this Short Term Training Program (STTP) is to make the participants aware of these advancements. The STTP will comprise of the essential theory and mathematical modelling on different smart materials and hands-on session on smart materials with some programs and simulation tools.

COURSE CONTENTS:

Introduction to smart materials, State-of-the Art in smart materials & systems developments, piezoelectric materials, shape memory alloy, electro/magneto rheological fluids, electroactive polymers, ionic polymer metal composites, phase change materials, modelling of smart materials, smart structures, applications of different smart materials.

RESOURCE PERSONS:

Apart from faculty members of C V Raman Global University, experts from IIT, NIT, and Industries like ISRO, DRDO, ARDE, IMMT will conduct the theory and practical sessions in the programme.

SELECTION:

There is no registration fee for eligible participants of AICTE approved institute. As seats are limited, the preference will be on first-come-first-serve basis. The intimation regarding selection will be sent to the candidates by email as per the schedule. Certificates will be issued to the participants only after attending the complete course and have scored minimum 60% marks in the test.

ABOUT THE INSTITUTE:

C V Raman Global University (formerly known as C V Raman College of Engineering), Bhubaneswar is an engineering and management institution in the Eastern Zone of Odisha, which was established in 1997 under C V Raman Group of Institution. The University is an ISO 9001:2015 certified institution, approved by AICTE, New Delhi. UG programs in engineering offered by the institute have been accredited by NAAC and NBA.



ABOUT DEPARTMENT:

The Department of Mechanical Engineering was there from the inception of the college. The aim of the department is to be recognized as one of the top tier department in imparting quality education, carrying out research and technology development in the country. The department provides an outstanding research environment and offers academic program leading to the award of B.Tech., M.Tech. and Ph.D. degrees.

ADDRESS FOR COMMUNICATION:

Dr. Dillip Kumar Biswal

Programme Coordinator

Department of Mechanical Engineering
C V Raman Global University, Bhubaneswar

Odisha - 752054, India

Mobile: + 91-7978109908 / 9040450180

e-mail: dillipkumarbiswal@gmail.com

hod_mech@cgu-odisha.ac.in

IMPORTANT DATES:

Last date for receipt of duly filled application

25th December, 2020

Finalization of list of selected participants

11th January, 2021

CERTIFICATION:

e-Certificate will be provided to those participants who attend all the sessions of the program and also appear for the online test as per the norms of AICTE.

ORGANIZING COMMITTEE:

Patrons:

Mr. Sanjib Kumar Rout, Founder President, CGU, Odisha

Mrs. Shailja Rout, Vice President, CGU, Odisha

Chairperson:

Prof. B. Bhattacharya, Acting Vice-Chancellor, CGU, Odisha

Convener & Program Coordinator:

Dr. Dillip Kumar Biswal, HoD (ME), CGU, Odisha

Program Co-ordinators:

Dr. Bikash Ranjan Moharana, Asst., Prof., CGU, Odisha

Mr. Rakesh. D, Asst., Prof., CGU, Odisha

Advisory Committee

Prof. K.C. Patra, Director, CGU, Odisha

Prof. S. K. Sarangi, Advisor, CGU, Odisha

Prof. N.S. Das, Professor (ME), CGU, Odisha

Prof. A.K. Behera, Professor (ME), CGU, Odisha

Prof. Ganapati Panda, Advisor, GCU, Odisha

Shri Sibasis Maity, Advisor, CGU, Odisha

Dr. H. Mohapatra, HoD (physics), CGU, Odisha

Mr. S.S. Mohanty, HoD (Civil), CGU, Odisha

Prof. P. Kanungo, HoD (ETC), CGU, Odisha

Dr. S.K. Bisoi, HoD (CSE), CGU, Odisha

LOCAL ORGANIZING COMMITTEE

Dr S. Routray, Assoc.Prof., CGU, Odisha

Dr M K Gopaliya, Assoc.Prof., CGU, Odisha

Dr H. Joardar, Assoc.Prof., CGU, Odisha

Dr T. P. Mohapatra, Assoc.Prof., CGU, Odisha

Dr M. K. Parida, Asst. Prof, CGU, Odisha

Dr S. K. Rout, Asst. Prof, CGU, Odisha

Dr B. C. Behera, Asst. Prof, CGU, Odisha

Dr Shushovan Basak, Asst. Prof, CGU, Odisha

Dr. K.S. Bal, Asst. Prof, CGU, Odisha

Dr. Rahul Kumar, Asst. Prof, CGU, Odisha

Dr. S. Ganguli, Asst. Prof, CGU, Odisha

Mr Pankaj Kumar, Asst. Prof, CGU, Odisha

Mr M K R. Pulagam, Asst. Prof, CGU, Odisha

Mr Rakesh Ku. Jena, Asst. Prof, CGU, Odisha

Mr Prasheet Mishra, Asst. Prof, CGU, Odisha

Ms. R. K. A Pattanayak, Asst. Prof, CGU, Odisha

Mr. B.K. Khamari, Asst. Prof, CGU, Odisha

REGISTRATION LINK:



<https://forms.gle/azsHe2GYjCxNAzAh9>

SMART MATERIALS AND SYSTEMS: THEORY AND APPLICATIONS

Series	STTP Title	Date
1	Smart Materials and Systems: Emerging Research Areas (Completed Successfully)	02.11.2020 - 07.11.2020
2	Processing, Characterization and Modeling of Smart Materials and Systems	18.01.2021 - 23.01.2021
3	Application of Smart Materials and Systems	08.03.2021 - 13.03.2021