

About the University:

Veer Surendra Sai University, Burla is a nationally recognised premier technical university located the state of Odisha. The university has established in the year 1956 as “University College of Engineering, Burla” and subsequently converted to university in the year 2009. VSSUT acts as an academic and research hub by promoting quality technical education for the society in collaboration with closely located industries and educational institutions. The university has more than 15 departments offering undergraduate and post graduate program across 39 disciplines and PhD programmes on emerging and advanced areas in engineering and sciences.

About the Department:

The Department of Civil Engineering has been in existence since the inception of the University. The department offers academic programmes: B.Tech. in Civil Engineering, M. Tech. in Structural Engineering, Geotechnical Engineering, Transportation Engineering, Water Resources Engineering and Environmental Engineering and Ph.D. in Civil Engineering. The faculty members of the department are well qualified having their highest degrees from reputed international and national institute like IITs and NITs. The labs are well equipped with state of the art equipment. Many of our alumni hold prestigious positions in leading academic institutions, industry and government in different countries all over the world.

About the UGC-UKIERI Collaborative Project

A UGC - UKIERI thematic partnership project entitled “FRP shear strengthening of damaged concrete beams subjected to fatigue loading” has been awarded to Civil Engg. Dept., VSSUT Burla and School of Civil Engg, University of Birmingham, UK with Prof. A.N. Nayak and Prof. S. Dirar as the lead Indian and lead UK partners, respectively. Dr. B. Nanda, Dr. A. Faramarzi and Dr. M. Theofanous are the other partners of the collaborative project. The workshop is being organized as a part of the Activity Plan of the Project for dissemination of research findings among academicians and practising engineers, and to gain a valuable insight of current design, construction practices and needs prevailing in markets.

Patron

Prof. Atal Chaudhuri
Vice Chancellor, VSSUT, Burla

Co-Patrons:

Prof. P. K. Modi, Dean, SRIC
Prof. Sanjay K. Patro, Head, Dept. of Civil Engineering

Coordinators:

Prof. Amar Nath Nayak, Professor,
India Lead Partner, UGC-UKIERI collaborative research project
Dr. Bharadwaj Nanda, Asst. Professor,
India Partner, UGC-UKIERI collaborative research project

Advisory Committee

**School of Civil Engineering, University of Birmingham,
UK**

Prof. Samir Dirar
UK Lead Partner, UGC-UKIERI collaborative research project
Dr. A. Faramarzi,
UK Partners, UGC-UKIERI collaborative research project
Dr. M. Theofanous,
UK Partners, UGC-UKIERI collaborative research project

Veer Surendra Sai University of Technology, Burla

Dr. A.K. Nayak, *Assoc. Professor in Civil Engineering*
Dr. R.K. Panigrahi, *Assoc. Professor in Civil Engineering*
Dr. SK. Panigrahi, *Assoc. Professor in Civil Engineering*

Address for Correspondence

Coordinator, RASCS-2019,
Department of Civil Engineering,
VSSUT, Burla, Sambalpur-768018,
Odisha.

Tel: (+91) 98 612 38403, (+91) 96 924 18265

Email: nayakan1964@gmail.com,
bnanda_ce@vssut.ac.in



UKIERI
UK-India Education
and Research Initiative

UGC-UKIERI Sponsored

**One Day Workshop on
Recent Advances in Strengthening of
Concrete Structures (RASCS-2019)**

09th March 2019

Organised by:



**Department of Civil Engineering,
Veer Surendra Sai University of Technology
Burla, Sambalpur, Odisha -768018**

In collaboration with:



**UNIVERSITY OF
BIRMINGHAM**

**School of Engineering, University of Birmingham
Edgbaston, Birmingham, B15 2TT, United Kingdom**

**UGC-UKIERI Sponsored
One Day Workshop on
Recent Advances in Strengthening of
Concrete Structures (RASCs-2019)**

(9th March 2019)

Application Form

1. Name (Block letters):

2. Designation:

3. Organization (with detailed address):

4. Date of Birth:

5. Address for communication:

Pin Code:

Mobile:

E-mail:

6. Academic Qualification (Please tick mark)

(a) B.Tech. (b) M.Tech. (c) Ph.D

7. Specialization:

8. Experience (in years):

(a) Teaching (b) Industrial (c) Research

Date

Place

Signature

Preamble:

The strength enhancement of structurally deficient reinforced concrete (RC) infrastructure is an application of considerable economic and strategic importance. A significant numbers of structures constructed during first half of last century have reached the end of their planned service life. Deteriorations in the form of steel corrosion, concrete cracking, and spalling is observed frequently in those structures. In addition, many of these structures were built to carry loads that are significantly smaller than the current needs. In order to maintain desired serviceability, these structures need to be repaired or strengthened as their associated replacement cost is much higher from economic, environmental and social point of view. In order to maintain efficient serviceability, older structures must be repaired or strengthened so that they can meet the same requirements demanded of structures built today and in the future. It is also becoming both environmentally and economically preferable to repair or strengthen the structures rather than to replace them totally, particularly if rapid, effective and simple strengthening methods are available. Unfortunately, there is no single solution for all strengthening work and the complicity increases due to unavailability of technical workforce for this work. However, success can be achieved if the repair and strengthening systems are tailored to serve a structure's intended use without interfering with its occupants or function. The key to success is a combination of the different design skills and application techniques—structural strengthening and structural repair—necessary for such projects.

About the Workshop:

This workshop has an objective towards the awareness generation among the participants & strengthening the manpower regarding, strengthening of reinforced concrete structures and to train the participants for the same. Internationally and nationally renowned Speakers will cover the issue, methodology, and materials. During the past two decades, fibre reinforced polymer (FRP) composite has gained acceptance as strengthening systems for existing RC structures. Extensive research has resulted in approved FRP strengthening methods for RC structures. Additionally, high strength to weight ratio fatigue resistance, minimum change in geometry, easy and rapid installation of FRP makes it as an efficient method for

strengthening of RC structures. Therefore emphasis will be given on FRP based strengthening methods. Nevertheless, the workshop includes a special session for interaction between the experts and the participants, which will involve the prospective and constraints of practical experience.

Targeted Audience:

The Organiser is expecting the application for participation in the workshop from the interested individuals in general from academicians, researchers, & students, technocrats & engineers, policy makers and government officers from housing/ industrial agencies, builder and administrators working in the relevant fields of structural engineering. The ideal audience would be numbered around 50 participants.

Due to limited seats, the interested participants are requested to register themselves on or before March 01, 2019. If seats are available after that, the organiser will definitely accept the application. **There is no registration fee for the workshop. No TA/DA will be given and the accommodation, if required, has to be arranged by the participants only.**

Resource Persons:

The faculty members from nationally acclaimed institutes like Indian Institute of Technology, Kharagpur, National Institute of Technology, Rourkela and VSS University of Technology, Burla will deliver the expert lectures in the workshop.

Tentative Programme

Date: March 09, 2019 (Saturday)

Venue: Seminar Room (C-223), Civil Engg Dept., VSSUT Burla

08.30-09.30: Registration

09.30-10.15: Inaugural Session

10.15-10.30: High Tea

10.30-12.00: Lecture 1 (Prof. AN Nayak, VSSUT, Burla)

12.00-13.30: Lecture 2 (Prof. A. Deb, IIT, Kharagpur)

13.30-14.30: Launch Break

14.30-16.00: Lecture 3 (Prof. S. K. Sahu, NIT, Rourkela)

16.00-17.00: Lecture 4 (Dr. B Nanda, VSSUT, Burla)

17.00-17.15 Tea Break

17.15-17.30: Valedictory & Certificate Distribution