

## About the Institute:



The Institute was initially established as Sardar Vallabhbhai Regional College of Engineering in 1961. It was later upgraded as a National Institute of Technology in 2002. It has been accorded the status of institute of national importance. At present, SVNIT is one of the prestigious engineering institutions of the country and has contributed many outstanding engineers in India and abroad. It is running six undergraduate, seventeen postgraduate programs and Ph.D. program in all disciplines of engineering and applied sciences. For more details, please visit:

<http://www.svnit.ac.in/>

## About the Department:

The Mechanical Engineering Department came into existence in the year 1961. Department has a team of 37 qualified faculty members having specialization in various areas. At present the department is conducting a UG program (Mechanical Engineering), five PG programs (Mechanical Engg., CAD/CAM, Thermal System Design, Turbo-machines and Manufacturing Engg.) and a research program leading to M. Tech (Research) and Ph.D. degree. For more details, please visit:

[http://svnit.ac.in/web/department/mechanical/mechanical\\_dept.php](http://svnit.ac.in/web/department/mechanical/mechanical_dept.php)

## About the advanced welding laboratory:

As a part of research and development in the welding area, an advanced welding laboratory is recently established and facilitated with advanced equipments like welding simulator, plasma transferred arc welding machine, MIG welding machine, SMAW machine, spot welding machine, abrasive cutting machine, etc. along with various testing equipments.

The welding simulator consists of various provisions like different process parameters' setting, electrode retraction, selection of materials for work piece and electrode as well as design specific part development which covers industrial welding skill aspects. SMAW and MIG welding machine are used to correlate learned welding skills with actual industrial requirements and these machines are driven by artificial intelligence.



## AICTE Training and Learning (ATAL) Academy



sponsored



## Faculty Development Program

on

## Reality based welding simulator: Significance, hands on training and industrial correlation

23 - 27 December, 2019

## Coordinator

Dr. V. D. Kalyankar  
Assistant Professor

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## Organized by

Mechanical Engineering Department  
S. V. National Institute of Technology  
(SVNIT)  
Surat - 395007, Gujarat, INDIA

## About the faculty development program:

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Manufacturing industries involving welding as their major operation are realizing the significance of reality systems for training and product/operation analysis purpose in welding field. Reality based welding simulator can help to expedite skill development and reduce production cost, downtime cost, training costs, etc. which results in efficient performance and cost effectiveness of the industry. Hence, reality based training-cum-analysis combined with actual scenario, have distinct advantages.

The aim of this program is to provide a fundamental understanding on reality based welding simulation, its correlation with actual welding as well as relevant testing for welded parts to a broad spectrum of researchers, teachers and students. Various industries are now making use of welding simulator not only to train their resources but also to enhance weld quality, minimizing defects, designing best WPS/PQR, etc.

During the program, efforts will be made to invite experts of the welding field from reputed industries for conducting few sessions to present the need and importance of this type of approach. Participants will get chance to interact with these experts to discuss their problems. It is also proposed to invite some industries to display their latest products, technologies before and after the program sessions.

Thus, this program will help participants to understand latest industrial scenarios, work methodology and will try to bridge the gap between academics and industries.

## Major contents:

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- Need/significance of a new approach i.e. weld simulator from industrial perspective.
- Lab visit. Hands on training to understand a reality based approach with the help of variable welding process parameters.
- Demonstration and training effectiveness in accordance with WPS setting/design and influence of process parameters.
- Demonstration of weld joint analysis through virtual and real time welding.
- Understanding the need of testing associated with welded part.
- Introduction to advances in the welding and exposure to scope for research in the field of welding from industry perspective.
- Interactions with industry experts of welding field during/after the sessions.
- Industries may be invited to display latest welding products, at the end of the day.

## About program fees:

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There is no registration fee from any participants. No TA/DA will be paid to any participants. Participants will have to make their own stay arrangement during the five days. Only tea during sessions/working lunch will be provided by organizers to the participants during the course.

## About accommodation facility at SVNIT:

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Accommodation can be made available to the interested participants in institute/hostel guest house on self-payment basis, subjected to availability. For charges and other details, please refer:

<http://svnit.ac.in/web/campus.php?tag=guesthouse>

## Speakers:

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The resource persons for the program shall include faculty members of the host institute and invited speakers from reputed industries.

## Eligibility of participants:

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Faculty members of AICTE approved institutions, research scholars and PG scholars are eligible to attend the program.

## Registration procedure:

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- Participants interested to attend this program need to make compulsory online registration on the below mentioned link: <https://forms.gle/tWyB8fxNiAYpMRfG7>
- Participants also need to separately submit their registration form (available in the brochure), duly signed by respective authorities.
- Hard copy of the duly filled registration form should reach the coordinator up to 13<sup>th</sup> Dec., 2019. However, scanned copy of registration form must be sent through email for early registration.
- Number of participants are limited to 50. Short listed candidates will be informed through their email.
- On completion of the program, the certificate of participation will be issued by coordinator to those participants who have attended the program without any absenteeism.
- A test shall be conducted by coordinator at the end of the program. The certificate of completion will be issued by the ATAL academy to those participants who scored minimum 60% marks in the test.

**AICTE Training and Learning (ATAL)  
Academy sponsored  
Faculty Development Program**



on  
**Reality based welding simulator:  
Significance, hands on training and industrial  
correlation**



**23 - 27 December, 2019**

**Registration form**

Name (Capital letters): \_\_\_\_\_

Designation: \_\_\_\_\_

Department: \_\_\_\_\_

Institute name with address: \_\_\_\_\_

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Whether institute is AICTE approved (Yes/No): \_\_\_\_\_

Experience (In years): Teaching: \_\_\_\_\_ Industry: \_\_\_\_\_

Highest qualification: \_\_\_\_\_ Gender: \_\_\_\_\_

Area of research/teaching: \_\_\_\_\_

E-Mail ID: \_\_\_\_\_ Mobile number: \_\_\_\_\_

Accommodation Required (Yes/No): \_\_\_\_\_ (*Refer brochure*)

Date: \_\_\_\_\_

(Signature of applicant)

(Signature of forwarding authority with seal)

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To,  
**Dr. V. D. Kalyankar**  
Program Coordinator,  
Mechanical Engineering Department,  
S. V. National Institute of Technology, Surat – 395007, Gujarat, India.