



# FACULTY DEVELOPMENT PROGRAMME (FDP) ON



**COMPUTER ORIENTED OPTIMIZATION TECHNIQUES AND THEIR APPLICATIONS IN ENGINEERING**

**(15-11-2017 to 20-11-2017)**

**Organized by**

**Sri Vasavi Engineering College, Pedatadepalli, Tadepalligudem, Andhra Pradesh  
in association with**

**National Institute of Technology, Warangal.**

**Under the Scheme of Electronics & ICT Academy**

**(Sponsored by Ministry of Electronics and Information Technology (MeitY), GOI)**

**Preamble:**

"Electronics & ICT Academy" was set up at NIT Warangal with financial assistance from MeitY, GoI. The jurisdiction of this academy is Telangana, Andhra Pradesh, Karnataka, Goa, Puducherry and Andaman & Nicobar Islands. This academy role is to offer faculty development programmes in standardized courses and emerging areas of Electronics, Information Communication Technologies, training & consultancy services for Industry, Curriculum development for Industry, CEP for working professionals, Advice and support for technical incubation and entrepreneurial activities. Under the umbrella of this academy, a standardized course namely 'Computer Oriented Optimization Techniques and Their Applications in Engineering' is proposed to be held at SVEC, Tadepalligudem

The process of determining the best design is called optimization. Often engineering optimization is done implicitly. Using a combination of judgment, experience, modeling, opinions of others, etc. an engineer makes design decisions which, he or she hopes, lead to an optimal design. Some engineers are very good at this. However, if there are many variables to be adjusted with several conflicting objectives and/or constraints, this type of experience-based optimization can fall short of identifying the optimum design. The interactions are too complex and the variables too numerous to intuitively determine the optimum design.

This faculty development program devoted to computer-based approach to design optimization. With this approach, we use the computer to search for the best design according to criteria that we specify. The computer's enormous processing power allows us to evaluate many more design combinations than we could do manually. Further, we employ sophisticated algorithms that enable the computer to efficiently search for the optimum. Often we start the algorithms from the best design we have based on experience and intuition.

**Major Course Contents:**

- Introduction of Optimization and its techniques
- Multi-Objective Optimization
- Neural Network and Fuzzy Logic
- Nature Inspired Algorithms
- Swarm Intelligence

**Faculty conducting this programme:**

The programme will be conducted by the faculty members from NIT Warangal; Academicians in the concerned field from IITs/NITs/IIITs are invited to deliver lectures in the programme. Speakers from industries are also expected to deliver as part of the course.

**Eligibility:**

The programme is open to the faculty of Engineering Colleges, MCA Colleges and other allied disciplines in Telangana, Andhra Pradesh, Karnataka, Goa, Puducherry, Andaman and Nicobar Islands. Industry personnel working in the concerned /allied discipline can also attend.

**Registration Fee Particulars:**

Faculty and Research Scholars from Telangana, Andhra Pradesh, Karnataka, Puducherry, Andaman and Nicobar Islands, Goa	Rs. 2500/-
Faculty of SC/ST Category from Telangana, Andhra Pradesh, Karnataka, Puducherry, Andaman and Nicobar Islands, Goa	Rs. 1250/- (SC/ ST participants should submit the copy of their caste certificate to claim the concession along with application form)
Industry Participants	Rs. 7500/-
Participants from other states	Rs. 8500/-

SC/ST concession is only for faculty of mentioned states. Research Scholars are not eligible for SC/ST concession.

The participants need to send a crossed demand draft (DD) drawn in favor of "Director, NIT Warangal" and payable at SBH, NIT Warangal branch.

**Organized at:**

The programme will be coordinated and conducted by Department of Electronics and Communication Engineering of Sri Vasavi Engineering College, Tadepalligudem. The whole course is handled by academicians from premier institutions, Industry experts and Research advisors.

**Accommodation:**

All the selected participants will be provided FREE boarding & lodging in the institute guest house. No TA will be paid for the participants.

**How to apply:**

A filled in form of application in the prescribed format duly signed and sponsored by appropriate authorities (along with demand draft) should reach the coordinator by speed-post. It is also mandatory to send scanned application form and demand draft through e-mail to and [drsharma82dinesh@gmail.com](mailto:drsharma82dinesh@gmail.com) as selection will be intimated only through mail.

**Selection Criteria:**

Selection will be done based on first-come-first-serve basis to a maximum number of 50 (fifty). Additionally 10 participants from industry are allowed to participate. The list of selected participants will be intimated through e-mail. In case a candidate is not selected, the DD will be sent back. Candidates will be issued certificates on successful completion of the course. Reservations are followed for selecting candidates as per GOI norms.

**Important dates:**

Last date (Application & DD)	10 <sup>th</sup> Nov. 2017
Selection List by E- mail	11 <sup>th</sup> Nov. 2017
Duration	15 <sup>th</sup> Nov. to 20 <sup>th</sup> Nov. 2017

**About NIT Warangal:**

**National Institute of Technology, Warangal** is the first among 17 RECs setup as joint venture of the Government of India and the state government. Over the years the college has established itself as a premier Institute imparting technical education of a very high standard leading to the B.Tech degrees in various branches of engineering, M.Tech. and Ph.D programs in various specializations. All B. Tech and M. Tech programmes of NIT Warangal are NBA accredited.

**About SVEC, Tadepalligudem:**

**Sri Vasavi Engineering College, Tadepalligudem** was established in the year 2001 and has progressed significantly with Diploma, UG and PG program in Engineering. The college is now hosting the temporary campus of NIT – AP for which NITW is the mentoring institute. The Department of Electronics and Communication Engineering of SVEC offers B.Tech course in ECE & M.Tech courses in VLSI & Embedded Systems and Digital Electronics & Communication Systems, with good laboratory facilities.



## APPLICATION FORM



### **FACULTY DEVELOPMENT PROGRAMME (FDP)**

**ON**

**COMPUTER ORIENTED OPTIMIZATION TECHNIQUES AND THEIR APPLICATIONS IN ENGINEERING**

**(15-11-2017 to 20-11-2017)**

**Organized by**

**Sri Vasavi Engineering College,  
Pedatadepalli, Tadepalligudem- 534101, Andhra Pradesh**

**in association with**

**National Institute of Technology, Warangal.**

1. Name :
2. Designation :
3. Institution :
4. Email :
5. DD. No: Bank: Date:
- Amount:
6. Address for Correspondence:

#### **SPONSORSHIP CERTIFICATE**

Dr. /Mr. /Ms. .... is an employee of our Institute/Organization and is hereby sponsored to participate in the FDP on “**Computer Oriented Optimization Techniques and Their Applications in Engineering**”, sponsored by Electronics & ICT Academy during 15<sup>th</sup>Nov.– 20<sup>th</sup> Nov .2017 at SVEC, Tadepalligudem–534101

Signature of Head of Institution  
(with seal)

7. Educational Qualification:
8. Subjects taught so far:
9. No. of refresher courses/workshops attended:
10. Experience (in years):  
Teaching: Research: Industry:
11. Accommodation required: YES /NO
12. Do you belong to SC/ST : YES /NO  
(If yes, please specify and attach a copy of caste certificate to claim the concession)

#### **Address for correspondence**

*Post your application form with DD to*

**Dinesh Sharma, Ph.D.  
Department of Electronics & Communication Engineering  
Sri Vasavi Engineering College  
Pedatadepalli, Tadepalligudem-534101, India**

E-mail the scanned copies of filled-in and duly signed application form along with DD to  
[drsharma82dinesh@gmail.com](mailto:drsharma82dinesh@gmail.com)

*For more details about Electronics & ICT Academy, NIT, Warangal, please visit:  
<https://nitw.ac.in/eict>*

*For more enquiries please contact: Mobile: +91-8790446031, 8901101640  
+91-8818-284355*

#### **Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the Coordinator in case, I am unable to attend the course.

Signature of the Applicant

### **Coordinators**

**Dinesh Sharma, Ph.D.  
Associate Professor (ECE Dept.)  
Sri Vasavi Engineering College  
Pedatadepalli, Tadepalligudem-534101  
Andhra Pradesh, India**

**Prof. D.V.L.N. Somayajulu  
Electronics & ICT Academy  
National Institute of Technology  
Warangal-506004  
Telangana State, India**