

**PEDAGOGICAL SKILLS FOR  
TEACHER-ASPIRANTS IN  
SCIENCE AND ENGINEERING  
EDUCATION**

*(A Training Programme for Research Scholars Aspiring for  
Faculty Positions in Higher Education)*

**13<sup>th</sup> -18<sup>th</sup> November 2016**

*Organized by*

**Teaching-Learning Centre, NIT Warangal**

**REGISTRATION FORM**

Name: \_\_\_\_\_

Qualification: \_\_\_\_\_

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

Category(Tick as applicable): Open /OBC/SC/ST/ PWD

Month and Year of Joining Ph.D Programme:  
\_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Mobile: \_\_\_\_\_

Email: \_\_\_\_\_

**Declaration by the Applicant**

If selected, I agree to abide by the rules and regulations of the training programme and shall attend all the sessions.

Date: \_\_\_\_\_ Signature of the Applicant

**Recommended and Forwarded**

**Signature of the Supervisor**

**Signature of the Head of the Department**

**Teaching-Learning Centre of NIT Warangal:**

The Teaching-Learning Centre (TLC) is being established at NIT Warangal with grants from the Ministry of Human Resource Development, Government of India under the scheme, 'Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching' (PMMMNMTT). Under this scheme a separate building for TLC with the state-of-art training facilities which include a studio for video recording of lectures is going to come up. Many senior and young faculty members across various departments of the Institute are associated with this center as members of the Core-Team.

One of the important objectives of the center is to conduct short term and medium term training programs for Newly Inducted Teachers, In-Service Teachers and Teacher-Aspirants in Science and Engineering disciplines, so as to enhance their skills.

Other activities of the TLC include preparation of e-learning materials, offering courses on-line, curriculum development, carrying out research in pedagogy and integrating ICT into teaching-learning process.

**About NIT Warangal:**

National Institute of Technology Warangal, formerly known as Regional Engineering College was established in 1959. Over the years it has developed into a premier institute of higher learning and is ranked among the top technical education institutions in India. There are 13 Departments offering eight undergraduate and 32 post-graduate programmes besides doctoral programmes. About 5000 students across the country and about 500 international students study in the campus. It is a fully residential campus sprawling over 250 acres with excellent infrastructure, state of the art library, seminar halls, guest houses and laboratories.

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**(Second Batch)**



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**Teaching-Learning Centre**

**National Institute of Technology Warangal**

**Warangal- 506 004**

**Telangana State**

**Under PMMMNMTT Scheme of  
MHRD, Govt. of India**

**COORDINATORS**

**Prof. I. Ajit Kumar Reddy**

**Prof. B. V. Appa Rao**



**MHRD  
Govt. of India**

## Background:

Teachers in Engineering and Science disciplines in higher education usually join the teaching profession without any formal training in teaching methodology and learning psychology. They develop teaching skills out of their own experiences or from experiences shared by colleagues in course of their teaching career. Often, they are influenced by the ways in which their teachers taught them.

Pedagogy in higher education has undergone revolutionary changes in the past few decades. Traditional methods of lecturing have become obsolete in today's scenario. Outcome-based Education and Student-centered teaching have become order of the day. Further, use of a plethora of ICT tools in Teaching-Learning process has been redefining the role of a teacher from a mere provider of information to a facilitator of learning.

Most of the Ph.D scholars in Engineering and Science disciplines have a dilemma while choosing the right professional career option among the available opportunities in Industry, R&D and Institutions of Higher education. As they do not have any opportunity to undergo any training on teaching methods, quite a few of them shy away from the teaching profession. With exposure to suitably designed training programmes on teaching techniques and skills, many of such scholars, can become effective teachers

Against this backdrop, this six day training programme on development of 'Pedagogical Skills' has been conceptualized to provide an opportunity for the research scholars (who aspire to take up faculty positions) to get acquainted with teaching strategies and excel in teaching profession.

## Contact Details:

**Prof. I. A. K. Reddy, Coordinator, TLC,  
Mobile No: 08332969704**

## Objectives:

- ❖ To develop teaching skills among research scholars aspiring for faculty positions in higher education.
- ❖ To enable the participants understand and practice 'Outcome-based Teaching' and 'Learner-centered Teaching Strategies'.
- ❖ To enable them develop suitable tools of evaluation.
- ❖ To enable them identify and imbibe the competencies and attributes of a good teacher.
- ❖ To enable the participants communicate effectively in the classroom.

## Topics to be covered:

- ❖ Principles of Learning
- ❖ Motivation Techniques
- ❖ Outcome-based Education
- ❖ Formulating Instructional Objectives
- ❖ Domains and Taxonomies of Learning
- ❖ Learning Styles
- ❖ Active Learning Strategies
- ❖ Concept Maps
- ❖ Preparing and Using Animations in Teaching
- ❖ Effective Laboratory Instruction
- ❖ Communication and Presentation Skills for Classroom
- ❖ Effective Use of Instructional Media
- ❖ Learner Centered Teaching Strategies
- ❖ Principles of Assessment
- ❖ Cognitive Layers-based Design of Questions
- ❖ Enhancing Personal Effectiveness and Personal Productivity
- ❖ Simulated Teaching and Analysis

## Faculty:

Guest faculty from NITTTRs, Academic Staff Colleges, Core-Team members of Centre for Educational Technology, Teaching-Learning Centre and Senior Faculty from different departments of NIT Warangal, will deliver lectures, conduct workshop sessions and teaching practice sessions.

## Eligibility:

- Research Scholars in Engineering and Science disciplines, who have registered for Ph.D of any university / institute and have a desire to choose teaching profession as their career, are eligible.
- Candidates, who have completed Ph.D degree and are aspiring to take up faculty positions in institutions of Science and Engineering are eligible.
- Research scholars from Humanities and Management departments of NIT Warangal are eligible.

## Registration Fee:

There is no registration fee for research scholars of NIT Warangal. Participants from other institutions need to pay Rs.500/- as registration fee. There is no registration fee for participants who belong to SC/ST Category.

## Accommodation & Boarding:

Outstation participants will be provided free accommodation and boarding in institute hostels. Participants from NIT Warangal will be provided working lunch, mid-sessions tea & snacks.

## How to Apply:

Interested and eligible candidates who are willing to attend the course completely may apply by submitting the hard copy of the filled in registration form given in this brochure to the **TLC Office, CAM Building, NITW** or by sending the scanned copy of the filled in registration form by e-mail to **mtlc.nitw@gmail.com** on or before **7<sup>th</sup> November 2016**. Candidates who have applied for this programme earlier need not apply again. However, they have to confirm their willingness to participate in the programme in the new dates by e-mail before the due date.

## Selection of the Participants:

The batch size of the participants will be limited to 50. Selection will be based on diversity among applicants, experience and first-come-first-served basis. Selected candidates will be intimated by e-mail on or before **9<sup>th</sup> November 2016**.