

## RESOURCE PERSONS:

The resource faculty will be drawn from JNTUACEA, IIT, NIT, other premier Institutes and Industries. The course includes Lectures and Laboratory classes.

## ELIGIBILITY & SELECTION PROCEDURE:

Faculty working in Pharmacy colleges and Faculty of Chemical Engineering, Food Technology and Biotechnology with less than 10 Years of experience. Interested practicing engineers from industries may also apply. The strength permitted by AICTE is 50, which will vary depending upon response.

The aspirants/sponsored applicants can submit their duly filled-in applications to the coordinator along with the registration fee. Selection will be made by short-listing the applications based upon their relevance to the program.

## ACCOMMODATION:

Type of Institution	Travel	Boarding & Lodging	Registration Fee
AICTE Approved	To and fro AC 3 Tier fare on production of Tickets	Free at College Premises	Rs.500/-*
Industry/R&D Organizations	To be borne by the Participant		Rs.10,000/-

\*The amount is to be paid through a Demand Draft drawn in favor of The Principal, JNTUACEA payable at Ananthapuramu. The same will be refunded on completion of the program.

## ADDRESS FOR CORRESPONDENCE:

**Dr. P. Dinesh Sankar Reddy**

Associate Professor

Department of Chemical Engineering

JNTUACEA, Ananthapuramu - 515 002 (A.P)

Email: [pdsreddy@gmail.com](mailto:pdsreddy@gmail.com), Cell: +91-9491461980

**Note:** Hard copies of the Filled in application with sponsorship certificate and DD should reach the above address on or before 04/11/2017.

## CHIEF PATRON

**Prof. K. Rajagopal**

Vice Chancellor (i/c), JNTUA, Ananthapuramu

## PATRONS

**Prof. D. Subba Rao**, Rector, JNTUA

**Prof. S. Krishnaiah**, Registrar, JNTUA

## CO-PATRONS

**Prof. K. Pahlada Rao**, Principal, JNTUACEA

**Prof. M. L.S. Deva Kumar**,

Vice-Principal, JNTUACEA

## CHAIRPERSON

**Lt. S. Sharada**

Assistant Professor & Head (i/c),

Chemical Engineering, JNTUACEA

## ORGANIZING COMMITTEE

### Coordinator

**Prof. S.V. Satyanarayana**

Chairman, RRC, Pharmaceutical Sciences & Director R&D, JNTU Anantapur

### Co-Coordinator

**Dr. P. Dinesh Sankar Reddy**

Associate Professor, Chemical Engineering, JNTUACEA

### Members

**Prof. T. Bala Narsaiah**, ChE, JNTUACEA

**Mr. M. Kalyan Kumar**, APChE, JNTUACEA

**Dr. B. Dilip Kumar**, APChE, JNTUACEA

**Mr. K. Subba Rao**, ChE, JNTUACEA

**Ms. P. Uma Maheshwari**, ChE, JNTUACEA

**Mr. A. Rajasekhar Babu**, ChE, JNTUACEA

**Mr. M. Murali Naik**, ChE, JNTUACEA

**Mr. K. Peddintaih**, ChE, JNTUACEA

**Mr. G. Ravi Kumar**, ChE, JNTUACEA

**Mr. Abdul Khadar**, ChE, JNTUACEA

**AICTE Faculty Development Program on**

## **Recent Innovations in Unit operations for Pharmaceutical Industries**

**20-11-2017 to 02-12-2017**

*Sponsored by*

**All India Council for Technical Education**



*Coordinators*

**Prof. S.V. Satyanarayana**

**Dr. P. Dinesh Sankar Reddy**



*Organized by*

**Department of Chemical Engineering  
JNTUA College of Engineering  
(Autonomous)  
Ananthapuramu, Andhra Pradesh  
<http://www.jntuaceac.ac.in>**

## ABOUT THE COLLEGE:

JNTUA College of Engineering, Ananthapuramu, is one of the oldest premier colleges in South India, with illustrious alumni. The college has celebrated its *Diamond Jubilee* in the year 2006 and has an excellent atmosphere for advancement of one's knowledge. In the year 2008 the college has become a constituent college of the newly formed JNTUA, Ananthapuramu. 176 private Engineering/ Pharmacy/MBA colleges in the four districts of Rayalaseema and Nellore are affiliated to JNTUA Ananthapuramu. Ananthapuramu is well connected with major cities like Mumbai, Hyderabad, Bangalore and Chennai by rail and road. It is very near to places of tourist interest like Lepakshi, Hampi, Belum caves and Puttaparthi. The nearest airport is Bangalore.

## ABOUT THE DEPARTMENT:

The Department of Chemical Engineering was established in 1989 and has very recently celebrated its Silver Jubilee. The department is accredited with NBA and offers UG, PG, MS and Ph.D programs. The Department has highly qualified faculty with expertise in the areas of Membrane Separations, Pervaporation, Environmental Engineering, Nanotechnology, Interfacial Science, Fluidization, Micro-reactors and Bioprocesses. The department has earlier carried out and currently carrying many research projects sponsored by BRNS, BHEL, UCIL, AICTE, UGC, etc...

## ABOUT PROGRAM:

Sustainable access to innovative health care and continued advancement in research and development of innovative biopharmaceuticals are critical components for economic growth of any country. Pharmaceutical industries are one of the fast growing industries

which determine the economy of the country. The Indian pharmaceuticals market increased at a CAGR of 17.46 per cent during 2005-16 with the market increasing from US\$ 6 billion in 2005 to US\$ 36.7 billion in 2016 and is expected to expand at a CAGR of 15.92 per cent to US\$ 55 billion by 2020. By 2020, India is likely to be among the top three pharmaceutical markets by incremental growth and sixth largest market globally in absolute size. Because of recent technological innovations, India's cost of production of drugs is significantly lower than that of the US and almost half of that of Europe giving a competitive edge to India over others.

These industries expend a lot of their resources in Drug discovery, clinical trials and product development. The product development process accounts for 30-35% of R&D costs and approximately 4-5 years of the duration of the entire product line from beginning to launch. However, still these industries are facing problems of high relevance to the design and manufacture of pharmaceutical products. To address this, a quantitative understanding of material properties, understanding of chemical, biological and physical unit operations, quantitative prediction of their performance and the integrated process perspective are necessary. In order to understand the basic principles of unit operations and to train the students practically on these operations, various universities have added subjects entitled as "Pharmaceutical Engineering/Unit Operations" in their curriculum. These subjects deal with the basics of unit operations like heat transfer, mass transfer, mixing, flow properties, solvent recycling and safety measures which are of high prominence while handling of raw materials till finished products.

The program is designed with an aim to educate the participants from Pharmacy in particular, Food Technology, Biotechnology and Chemical Engineering disciplines in general in enhancing their understanding of advanced Unit Operations through well planned lectures and also to impart the much needed practical knowledge through hands on training. Through this FDP it is expected that the faculty who attended can transfer the knowledge they gained and put into practice some new experiments in their curriculum by which the students will be able to understand the importance of advanced unit operations which are essential in pharmaceutical and allied industries. Participants from Industry can utilize the knowledge for implementing new unit operations in place of the existing ones for increasing the yield and capacity.

## Objectives of the Program

The main objectives of the present program are:

- ✓ To educate the participants about the importance of basic concepts of unit operations and its importance in pharma and allied industries.
- ✓ To explore the latest advancements in unit operations through various lectures from eminent personalities and hands on training.
- ✓ To make an interactive session between academic and industrial personalities to enable the participants be aware about the requirements of the pharma and allied industries.

## Topics to be covered

- Classical Unit Operations
- Materials of Construction
- Recent Developments in Unit Operations like Membrane Separations, Chromatographic Separations, Mixing.
- Few case studies with relevance to Pharma/ Allied industries.

**AICTE Faculty Development Program on**  
**Recent Innovations in Unit operations for Pharmaceutical Industries**

(20-11-2017 to 02-12-2017)

**Department of Chemical Engineering**  
**JNTUA College of Engineering (Autonomous)**  
**Ananthapuramu – 515002, Andhra Pradesh**

**APPLICATION FORM**

Name (in Block Letters) :  
Date of Birth & Age : Qualification:  
Organization :  
Designation :  
Experience (in Years): Teaching: Research: Industry:  
Address for Communication:  
  
Phone: (O):  
Mobile: +91 e-mail ID:  
Is your Institution approved by AICTE: Yes/No  
Accommodation: Required/Not Required  
No. of Summer/Winter schools/STTPs attended:  
DD No.: Date: Bank: Amount: Rs.500/-

**Declaration by the candidate**

The given information is true to the best of my knowledge. I agree to abide by the rules and regulations governing the program. If selected, I shall attend the course for the entire duration, In case I am unable to attend the course, I am prepared to forego the refundable advance paid by me (if applicable).

Place:  
Date: Signature of the Candidate

**Sponsorship**

Mr./Ms./Dr. \_\_\_\_\_ is a regular employee of our Institution and is hereby sponsored. He/she will be permitted to attend the program, if selected.

Date: Office Seal Signature of the Head of Institution