



**JAYAMUKHI INSTITUTE OF TECHNOLOGICAL SCIENCES**

**UGC - AUTONOMOUS**

Permanently Affiliated to JNTUH, Accredited by NBA, Recognised Under UGC 2 (f) & 12 (b)

NARSAMPET, WARANGAL - 506332

*Name of the Programme*

**15. Advancements in**  
**Manufacturing &**  
**Optimization Techniques**

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## Organizing Committee

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### Chief Patron:

Sri Ch. Narsimha Reddy – President

### Patron:

Sri Ch. Devender Reddy – Secretary

Sri T.V.R.N Reddy – Joint Secretary

### Principal

Dr. M. Lokanadha Rao

### Director

Prof. P. Rangaiah

### Convenor

Mr. M. Jawahar, Associate Professor,  
Head, Mechanical Engineering.

Mobile: +91 7569839692

### Coordinators

Mr. M. Srikan,

Assistant Professor, MED.

Mobile: +91 8801984555

Mr. Md. Shafath Ali Nawaz

Assistant Professor, MED.

Faculty Advisor, SAEINDIAJCC.

Mobile: +91 9182126692

Email: [mechfdp2020@gmail.com](mailto:mechfdp2020@gmail.com).

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## Resource Persons

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**Dr. Somashekar. S. Hiremath**  
Associate Professor, IIT – Madras.

**Dr. Adepu Kumar**  
Professor, NIT – Warangal.

**Dr. Ch. Sridhar Reddy**  
Professor, JNTU – Manthani.

**Dr. P. Ravinder Reddy**  
Professor, CBIT - Hyd.

**Dr. K. Eswaraiiah**  
Professor, KITS – Warangal.

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### NOTE: NO REGISTRATION FEE

For Registration please click the link below

<https://forms.gle/3PTfnKPq7EMpnrzp7>

After Registration please join in any one of the following WhatsApp Group (please don't join in multiple groups)

Group - 1

<https://chat.whatsapp.com/ImhnCUQ6AGl3V6Mi9MmYPz>

Group - 2

<https://chat.whatsapp.com/JHkqvaA4QRyLo5LIYyCQT2>

Group - 3

<https://chat.whatsapp.com/IKWXF18rEPFEChz4zUiiTe>

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# JAYAMUKHI

## INSTITUTE OF TECHNOLOGICAL SCIENCES

...Producing World Class Engineers since 2001

Permanently Affiliated to JNTUH

Autonomous, Accredited by NBA

Recognized by UGC under 2(f) & 12(b)



## Department of Mechanical Engineering

### Organizes

### ONE WEEK

### FACULTY DEVELOPMENT PROGRAM

On

## Advancements in Manufacturing & Optimization Techniques

### 22<sup>nd</sup> – 26<sup>th</sup> June 2020



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## ABOUT THE PROGRAM

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Manufacturing industry is the backbone of any modern economy, with the globalization of the world economy India is emerging as one of the key manufacturing hubs and there is considerable demand from industry for meeting the Global challenges. This FDP will help to create awareness and deeper understanding of recent advances in smart manufacturing among the faculty and researchers working in various disciplines of engineering and sciences. It will also help the participants to understand and apply smart manufacturing technologies through several case studies and real life examples. The major aim of the programme is to explore the newest and advanced machining solutions, challenges and to create awareness about the present status of manufacturing engineering and to highlight the research being carried out and promote further research in these areas of manufacturing process design and optimization techniques.

Platform: **Meetings will be conducted by the GoToMeeting app**



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## ABOUT THE DEPARTMENT

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Department of Mechanical Engineering has set vision "To be a premier department for education in Mechanical Engineering in state of Telangana, moulding students into professional engineers". The department imparts state of the art education and encourages cutting edge research. It offers UG & PG programs. Well equipped Laboratories have been facilitated for the students. The institute has well qualified and experienced faculty. Apart from central library the department is providing library facilities to the students with huge amount of volumes and number of national and international journals. Our students are active members of SAEINDIA since many years and club actively participates in all the events organized by it. To improve the interaction and make the students close to the society, we plan activities and social events under NSS Programmes.

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### ELIGIBILITY:

All the Academicians/ Industrialist/ Research Scholar/ Engineers from industry and any engineering stream having interest in manufacturing related subject are eligible to apply.

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## ABOUT JAYAMUKHI

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Jayamukhi Institute of Technological Sciences Sponsored by Jayamukhi Education Society, established in 2001 to provide quality and contemporary education with social relevance in the engineering faculty with an ultimate vision to maintain global standards in higher learning and research. The institute has been approved by AICTE and recognized by the Government of Telangana. It is permanently affiliated to Jawaharlal Nehru Technological University (JNTU), Hyderabad, attained UGC Autonomous Status and accredited by NBA. The institute has come upon 40 acres of green pastures at Narsampet about 40km away from the historic city of Warangal and presents a picturesque and panoramic view. Jayamukhi offers a four-year B.Tech Programme in discipline of CSE, ECE, EEE, ME, & CE and P.G. Programmes like M.Tech & MBA.

- 
- Registration Fee: **Free**
  
  - Last date of registration: **21<sup>st</sup> June 2020**
  
  - E-Certificate of participation will be provided on successful completion.
  
  - Timing of e-FDP: **11:00AM to 12:30PM**
-



# JAYAMUKHI

INSTITUTE OF TECHNOLOGICAL SCIENCES

(UGC Autonomous) Accredited by NBA, Permanent Affiliated to JNTU, NARSAMPET WARANGAL 506322

**Day-1**

**Department Of Mechanical Engineering**

Present

**ONE WEEK FACULTY DEVELOPMENT PROGRAMME**

**on**  
**ADVANCEMENTS IN MANUFACTURING AND**  
**OPTIMISATION TECHNIQUES**



**Speaker :**

**Dr. Somashekar S.  
Hiremath**

**Associate Professor  
IIT Madras**

**Convenor :**

**M.Jawahar**

**Head  
Dept of Mech Engg**

**Patron :**



**Sri.TVRN Reddy  
Joint Secretary**



**Dr.M.Lokanadha Rao  
Principal**



**Prof.P.Rangaiah  
Director**

**Technical Talk  
ON**

**Role Of Miniaturization and  
Nano-Particle Generation Using  
Mechanical Micro - Machining  
Technique**

**22 June 2020  
11am**

**Join US!**

 **GoToMeeting**

**Coordinator's :**

**M.Srikiran  
Md.Shafath Ali Nawaz**

*Hearty Welcome to*

ONE WEEK ONLINE INTERNATIONAL FACULTY DEVELOPMENT PROGRAMME

**"Advancements in Manufacturing  
and Optimisation Techniques (AMOT -2020)"**

Organised by

**MECHANICAL ENGINEERING**

Session Timings:

11:00 am to 12:30 pm

FDP

starts on  
22nd to 26th  
June 2020  
at 11am



**Jayamukhi Institute of Technological Sciences**

NARSAMAPET

# Jayamukhi Institute of Technological Sciences

AUTONOMOUS, Affiliated to JNTUH  
Narsampet, Warangal (R) -506332 (T.S), INDIA.

## *Department of Mechanical Engineering*

One Week Online Faculty Development Programme on

## **ADVANCEMENTS IN MANUFACTURING AND OPTIMIZATION TECHNIQUES**

**22<sup>nd</sup> - 26<sup>th</sup> June 2020**

### PROGRAMME SCHEDULE

DATE	11.00 AM - 12.30 PM	
22 <sup>nd</sup> June, 2020	Inauguration	'Role of Miniaturization and Nano-particle Generation Using Mechanical Micro – Machining Techniques' by Dr.Somashekar.S.Hiremath, IIT Madras
23 <sup>rd</sup> June, 2020	'Practical Approach to FEA in Design & Manufacturing Techniques' by Dr. P.Ravinder Reddy, CBIT - Hyd	
24 <sup>th</sup> June, 2020	'Optimization Techniques used in Manufacturing Processes' by Dr.A. Kumar, NIT Warangal	
25 <sup>th</sup> June, 2020	'Optimization of EDM Process Parameters Using Genetic Algorithm Techniques' by Dr. K. Eswaraiiah , KITS Warangal	
26 <sup>th</sup> June, 2020	'Optimization with ANSYS Workbench' by Dr.Ch. Sridhar Reddy ,JNTU Manthani	Valedictory



# JAYAMUKHI

## INSTITUTE OF TECHNOLOGICAL SCIENCES

(UGC Autonomous) Accredited by NBA, Permanent Affiliated to JNTU, NARSAMPET WARANGAL 506322

Department of **MECHANICAL ENGINEERING**

Presents

**ONE WEEK FACULTY DEVELOPMENT PROGRAMME**

on

**ADVANCEMENTS IN MANUFACTURING  
AND OPTIMISATION TECHNIQUES**

Patron :



Joint secretary  
**Sri.TVRN Reddy**



Principal  
**Dr.M.Lokanadha Rao**



Director  
**Prof.P.Rangaiah**

Speakers :



**Dr. Somashekar S. Hiremath**  
Associate Professor  
IIT Madras

Role of Miniaturization and Nano-Particle Generation Using  
Mechanical Micro - Machining Techniques

22 June  
11am

23 June  
11am

**Dr. P. Ravinder Reddy**  
Professor, CBIT  
Hyderabad

Practical Approach to FEA in Design & Manufacturing Techniques



**Dr. A. Kumar**  
Professor  
NIT Warangal

Optimization Techniques used in Manufacturing  
Processes

24 June  
11am

25 June  
11am

**Dr. K. Eswaraiiah**  
Professor, KITS-wgl

Optimization of EDM Process Parameters Using Genetic  
Algorithm Techniques



**Dr. Ch. Sridhar Reddy**  
Professor, JNTU Manthani

Optimization with ANSYS Workbench

26 June  
11am

Convenor :

**M. JAWAHAR**

HEAD, Dept of Mechanical  
Engg

Coordinator's :

**M. SRIKIRAN**

Assistant Professor  
Dept of  
Mechanical Engg

**Md Shafath Ali Nawaz**

Assistant Professor  
Dept of  
Mechanical Engg

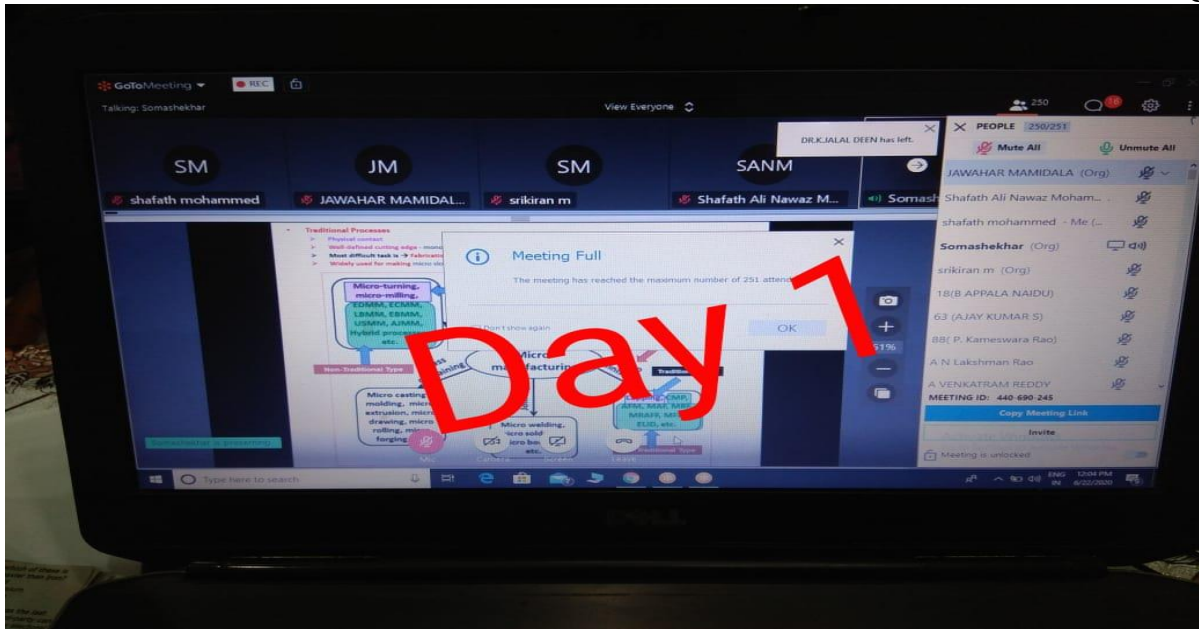
**JAYAMUKHI INSTITUTE OF TECHNOLOGICAL SCIENCES**  
U.G.C AUTONOMOUS

Permanently Affiliated to JNTUH, Accredited by NBA, Recognized Under UGC 2(f)& 12(b)  
Narsampet, Warangal – 506332.

Department of Mechanical Engineering  
One Week Faculty Development Programme

on

**“ADVANCEMENTS IN MANUFACTURING & OPTIMIZATION TECHNIQUES”**



  
**JAYAMUKHI**  
INSTITUTE OF TECHNOLOGICAL SCIENCES  
(UGC Autonomous) Accredited by NBA, Permanently Affiliated to JNTUH, NARSAMPET WARANGAL 506332

**Day-1**  
Department Of Mechanical Engineering  
Present  
ONE WEEK FACULTY DEVELOPMENT PROGRAMME  
on  
ADVANCEMENTS IN MANUFACTURING AND  
OPTIMISATION TECHNIQUES

**Patron :**

 **Sri.TVRN Reddy**  
Joint Secretary

 **Dr.M.Lokanadha Rao**  
Principal

 **Prof.P.Rangaiah**  
Director

**Technical Talk**  
ON  
**Role Of Miniaturization and  
Nano-Particle Generation Using  
Mechanical Micro - Machining  
Technique**

**Speaker :**  
**Dr. Somashekar S.  
Hiremath**  
Associate Professor  
IIT Madras

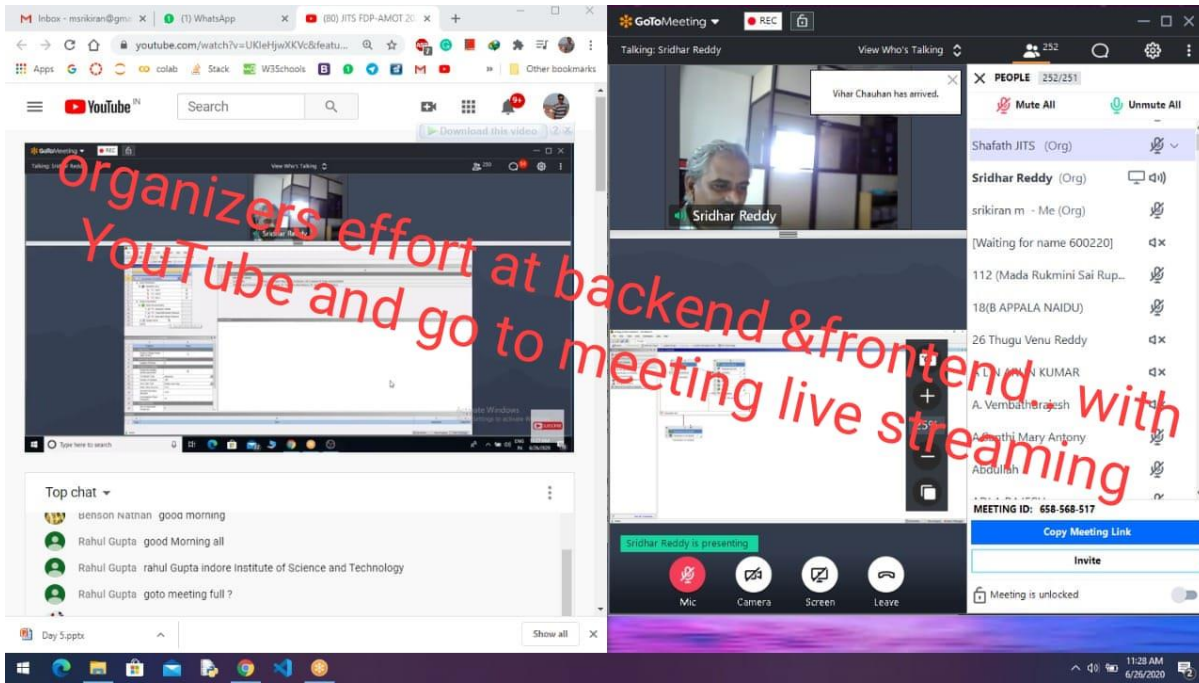
**Convenor :**  
**M.Jawahar**  
Head  
Dept of Mech Engg

**22 June 2020**  
**11am**

**Coordinator's :**  
**M.Srikiran**  
**Md.Shafath Ali Nawaz**

**Join US!**  





# JAYAMUKHI

INSTITUTE OF TECHNOLOGICAL SCIENCES

(UGC Autonomous) Accredited by NBA, Permanent Affiliated to JNTU, NARSAMPET WARANGAL 506322

Day-3

Department Of Mechanical Engineering

Present

ONE WEEK FACULTY DEVELOPMENT PROGRAMME

on  
ADVANCEMENTS IN MANUFACTURING AND  
OPTIMISATION TECHNIQUES



Patron :



Sri.TVRN Reddy  
Joint Secretary



Dr.M.Lokanadha Rao  
Principal



Prof.P.Rangaiah  
Director

Technical Talk

ON

Optimization Techniques  
used in Manufacturing  
Processes

24 June 2020  
11am

Speaker :

**Dr. A. Kumar**

Professor  
NIT  
Warangal

Convenor :

**M.Jawahar**

Head  
Dept of Mech Engg

Join US!

GoToMeeting

Coordinator's :

**M.Srikiran**  
**Md.Shafath Ali Nawaz**



# JAYAMUKHI

INSTITUTE OF TECHNOLOGICAL SCIENCES

(UGC Autonomous) Accredited by NBA, Permanent Affiliated to JNTU, NARSAMPET WARANGAL 506322

Day-2

Department Of Mechanical Engineering

Present

ONE WEEK FACULTY DEVELOPMENT PROGRAMME

on  
ADVANCEMENTS IN MANUFACTURING AND  
OPTIMISATION TECHNIQUES



Patron :



Sri.TVRN Reddy  
Joint Secretary



Dr.M.Lokanadha Rao  
Principal



Prof.P.Rangaiah  
Director

Technical Talk  
ON

Practical Approach to FEA  
in Design & Manufacturing  
Techniques

23 June 2020  
11am

Speaker :

Dr. P. Ravinder  
Reddy

Professor & Principal  
CBIT  
Hyderabad

Convenor :

M.Jawahar  
Head

Dept of Mech Engg

Join US!



Coordinator's :  
M.Srikiran

Md.Shafath Ali Nawaz

GoToMeeting | REC | Talking: Harshith Kumar Adepu | View Active Cameras

## Signal and Noise factors

Signal factors:  
parameters set by the user or customer.

Noise factors:  
Certain parameters cannot be controlled by the designer.

External: Temperature, humidity, electromagnetic, vibration, human error etc.

Unit-unit variation: The tightness of the door closure and the amount of refrigerant used .

Deterioration : The leakage of refrigerant and mechanical wear of compressor parts

66%

PEOPLE 231/251

Mute All | Unmute All

- DR ANOOP KUMAR TULI
- Dr B. Lingareddy
- Dr K Chandra Shekar (Off)
- Dr Kandula Ankamma
- Dr S Deva Prasad
- Dr. ABDULRAJAK BURADI
- Dr. J. Krishnaraj
- Dr. K. Kishor
- Dr. M. P. Rangaiah
- Dr. Md. Aleem Pasha
- Dr. Rajasekhar Medidi
- Dr. S. Sivasaravanan
- Dr.B.Singaravel

MEETING ID: 919-028-181

Copy Meeting Link

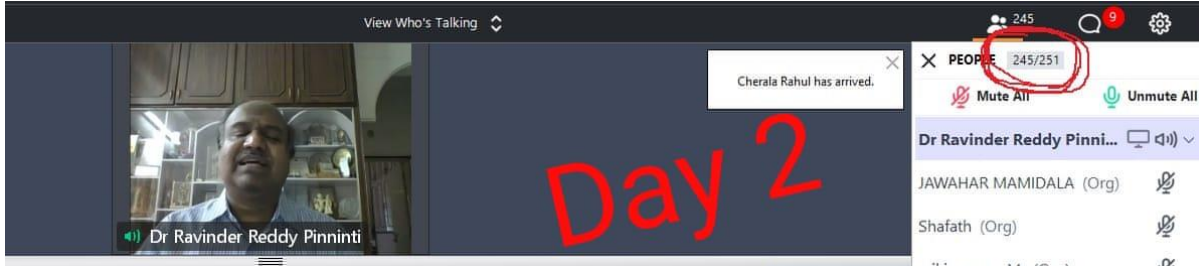
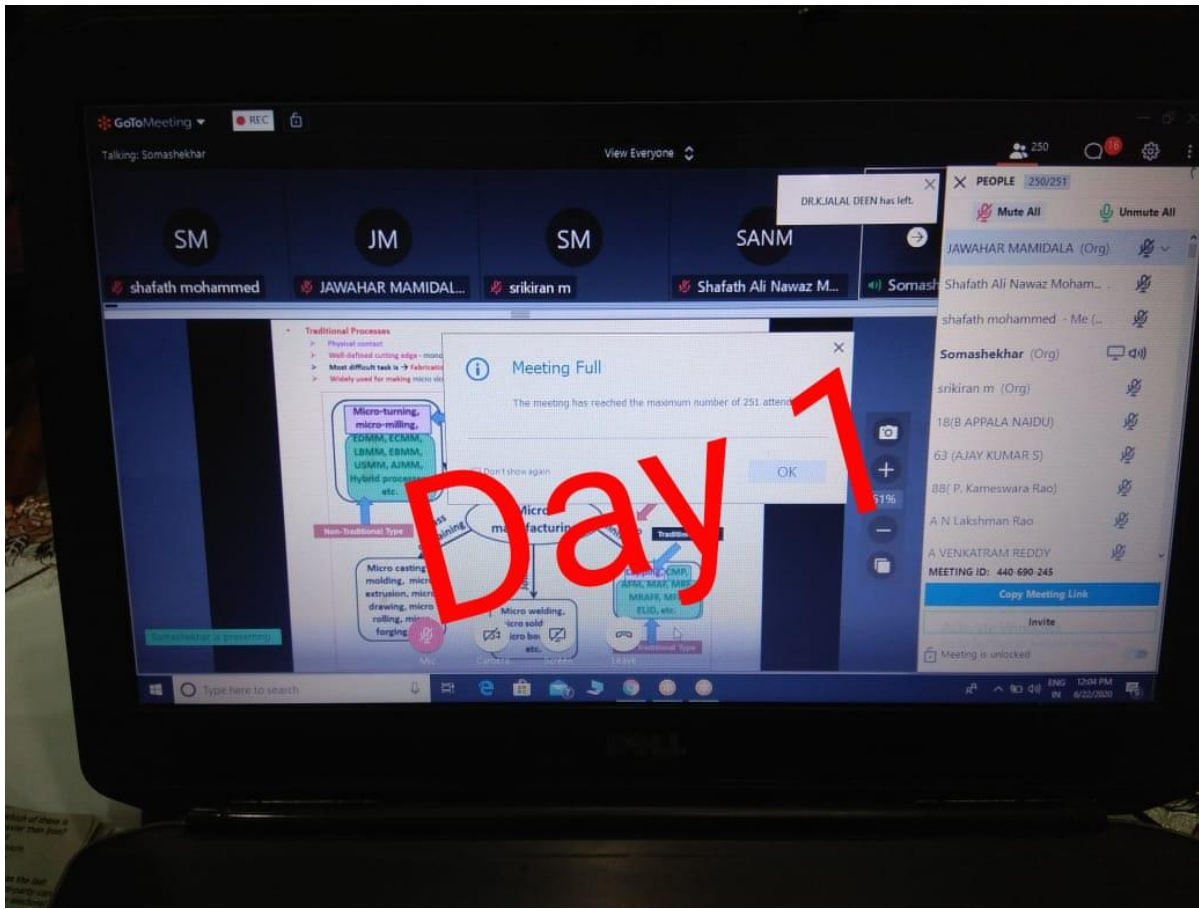
Invite

Meeting is unlocked

Dr. Adepu | Department of Mechanical Engineering | 16

Harshith Kumar Adepu is presenting

11:27 AM 6/24/2020



## INPUT – DESIGN SPACE

GoToMeeting REC

Talking: Harshith Kumar Adepu View Who's Talking

Dr.G.Venkatesha prasanna has arrived.

HKA Harshith Kumar Ade...

Linear graph of  $L_8(2^7)$  Orthogonal

Meeting Full  
The meeting has reached the maximum number of 251 attendees.

Linear graphs for  $L_8(2^7)$  orthogonal array

day-3 meeting full

MEETING ID: 919-028-181

Copy Meeting Link

Invite

Meeting is unlocked


12:01 PM 6/24/2020



**JAYAMUKHI**  
INSTITUTE OF TECHNOLOGICAL SCIENCES  
(UGC Autonomous Accredited by NBA, Permanent Affiliated to JNTU, NARSAMPET WARANGAL 506322)

**Day-5** Department Of Mechanical Engineering Present

ONE WEEK FACULTY DEVELOPMENT PROGRAMME  
on  
ADVANCEMENTS IN MANUFACTURING AND OPTIMISATION TECHNIQUES

  
**Patron :**  
Sri.TVRN Reddy  
Joint Secretary

  
Dr.M.Lokanadha Rao  
Principal

  
Prof.P.Rangalah  
Director

**Technical Talk ON**

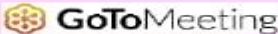
**Speaker :**  
Dr. Ch. Sridhar Reddy  
Professor, JNTU Manthani

**Optimization with ANSYS Workbench**

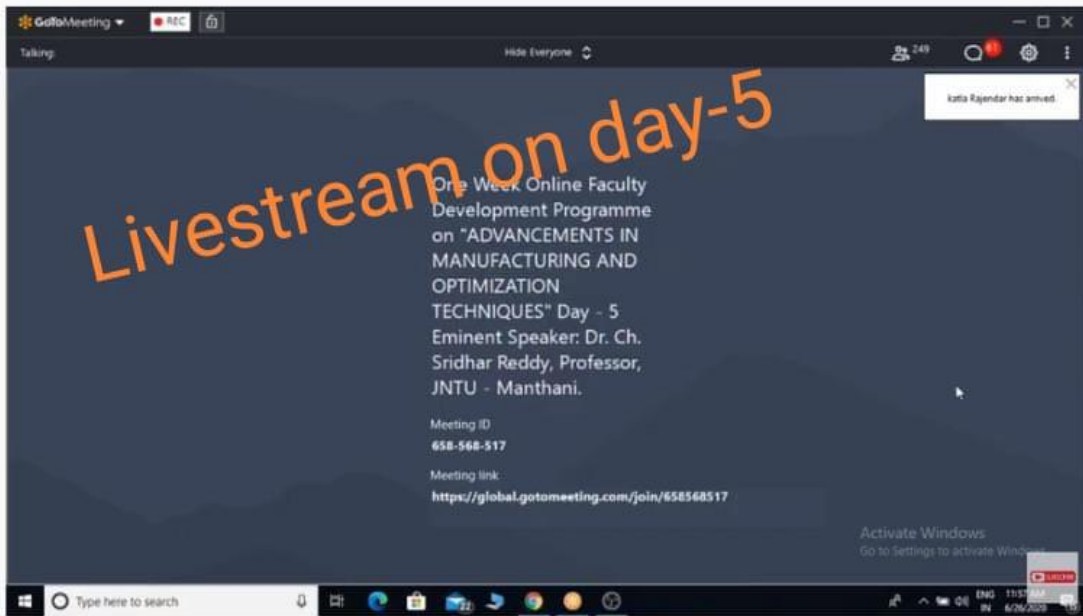
**26 June 2020**  
11am

**Convenor :**  
M.Jawahar  
Head  
Dept of Mech Engg

Join US!



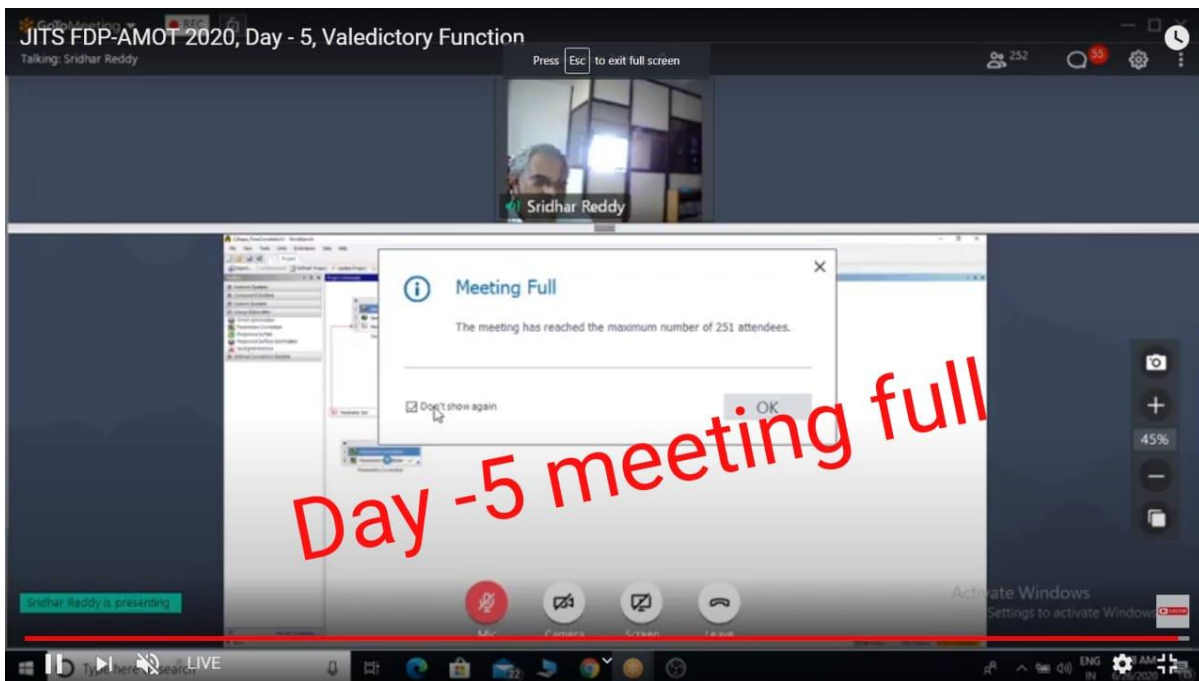
**Coordinator's :**  
M.Srikiran  
Md.Shafath Ali Nawaz



### JITS FDP-AMOT 2020, Day - 5, Valedictory Function

25 watching now · Started streaming 44 minutes ago

13 0 SHARE SAVE ...



Inbox - msnikiran@gmail.com - X (1) WhatsApp X (3) JITS FDP-AMOT 2020, Day - 5 X Day 5 FEEDBACK( 26-06-2020 ) - X +

youtube.com/watch?v=UKleHjwXKvc

Apps colab Stack W3Schools hi reach movierulz Practice Python

YouTube IN Search

GalaMeeting

Talking: Sridhar Reddy

View Who's Talking

K. Sri Harika has arrived.

Sridhar Reddy

### Steps in ANSYS Design Xplorer:

1. Create your model (either in Design Modeler or any other CAD software)
2. Load it into one of the analysis systems available in Workbench --- Simulate --- Solution
3. Select the parameters both as Input & Output Parameters
4. Add the Design Xplorer features that is needed - Direct Optimization, Response Surface Optimization
5. Set the analysis options and parameter limits.
6. Update the analysis
7. View the results of design, Xplorer, analysis.

0:04 / 1:41:35

Activate Windows  
Go to Settings to activate Windows

JITS FDP-AMOT 2020, Day - 5, Valedictory Function

231 views · Streamed live 90 minutes ago

21 0 SHARE SAVE ...

Top chat

K sudheer kumar good afternoon sir..

Mangapathi rao Kusumba good afternoon sir

Sree Murthy sir very nice session

Mangapathi rao Kusumba Dr Adepu Dr Eswaraih and today explained very clearly We need to put efforts to understand and use for research works

Mangapathi rao Kusumba please share all ppts and contact emails of these professors

Tatapudi Prasad T.PRASAD good presentation

K sudheer kumar nice presentation sir.

girish sm PLEASE SHARE FEEDBACK LINK

Mangapathi rao Kusumba good afternoon sir

Tatapudi Prasad please send me ppts

abilash Selvarajan share feedback link pls

wonder king  
Say something...

0/200

**feedback of Dr. sridhar Reddy sir**



# JAYAMUKHI

## INSTITUTE OF TECHNOLOGICAL SCIENCES

(UGC Autonomous) Accredited by NBA, Permanent Affiliated to JNTU, NARSAMPET WARANGAL 506322

### Day-4

### Department Of Mechanical Engineering

Present

#### ONE WEEK FACULTY DEVELOPMENT PROGRAMME

on  
**ADVANCEMENTS IN MANUFACTURING AND  
OPTIMISATION TECHNIQUES**



Patron :



**Sri.TVRN Reddy**  
Joint Secretary



**Dr.M.Lokanadha Rao**  
Principal



**Prof.P.Rangaiah**  
Director

Technical Talk

ON

**Optimization of EDM Process  
Parameters Using Genetic  
Algorithm Techniques**

25 June 2020

11am

Speaker :

**Dr. K. Eswaraiah**

Professor  
KITS  
Warangal

Convenor :

**M.Jawahar**

Head  
Dept of Mech Engg

Join US!

 GoToMeeting

Coordinator's :

**M.Srikiran**  
**Md.Shafath Ali Nawaz**





Estd:2001

# JAYAMUKHI INSTITUTE OF TECHNOLOGICAL SCIENCES

(UGC-AUTONOMOUS) Accredited by NBA, Permanently Affiliated to JNTU, Hyderabad  
Narsampet, Warangal (R) - 506 322.

**SAEINDIA**  
JAYAMUKHI COLLEGIATE CLUB

**A National Level One Week Online Faculty Development Programme on  
"ADVANCEMENTS IN MANUFACTURING AND OPTIMIZATION TECHNIQUES"**

## *Certificate of Participation*

This is to certify that

**Ms.SUCHARITHA ERRABELLI**

of

**Jayamukhi Institute of technological sciences**

has successfully participated in National Level One Week Online Faculty Development Programme (FDP) on **"ADVANCEMENTS IN MANUFACTURING AND OPTIMIZATION TECHNIQUES" (AMOT-2020)** during 22 - 26 June, 2020, Organized by the Department of Mechanical Engineering, Jayamukhi Institute of Technological Sciences, Narsampet, Warangal, Telangana.

**Mr.M.Jawahar**  
CONVENER

**Prof.P.Rangaiah**  
DIRECTOR

**Dr.M.Lokanadha Rao**  
PRINCIPAL