

## **DEPARTMENT OF MECHANICAL ENGINEERING**

### ONE WEEK FDP ON EMERGING TRENDS IN THERMAL ENGINEERING

### **Chief Patron**



Sri Vinay Kumar Reddy, Chairman

### **Patrons**



Sri Ch. Ravindranath Yadav, Secretary



Sri N. Sharath Reddy, CEO



Sri A. Hriday Reddy, Vice-Chairman

### **Principal**



Dr Suresh Akella



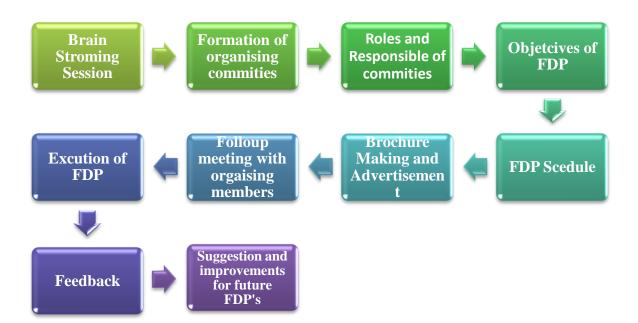
Mr. A C S Reddy HOD



Mr. K. Sainath FDP Convener



### **PROCESS OF CONDUCTING FDP**





### **STAGE 1: BRAIN STORMING AND PLANNING MEETING**

Brain storming and planning meeting was conducted with all mechanical department staff headed by Dr. Suresh Akella, Principal



Following Points were discussed

- Date and timing of FDP
- > Discussed about speakers and their topic and timing of speakers
- Different types of Committee formation
- Discussed about Certificate and brochure formats
- > Taken suggestions and ideas from each staff about conduction of FDP

### Coordinators

- 1. Dr. PM Diaz, Assoc. Professor, Mech.Engg.
- 2. Mr. K Sainath, Assoc. Professor, Mech.Engg.
- 3. Mr. Y Krishnaiah, Assoc. Professor, Mech.Engg
- 4. Dr. A C Umamaheshwar Rao, Assoc. Prof. Mech. Engg.
- 5. Mr. V Rama Krishna, Asst. Professor, Mech.Engg

### **Organizing Members**

Mr. V Rama Krishna Mr. K L N Murthy Mrs. Ramya Deepika Mr.T.Ravi Mr. B Sandeep Mr. Praveen B. Ronad Mr. K Raja Sekhar



Miss. P Usha Jyothirmai Mr. Manjunath B Mr. P PraveenKumar Mr. K. Nageswararao Mr. J.Sandeep Kumar Mr. B. Sanjanna Mr. G. Nagesh Mr. D.V. Paleshwar Mr. M A S R Abhilash Mr. M. Purushothamreddy

### **STAGE 2: FORMATION OF COMMITTEES AND ITS ROLES**

### **Stage Committees members**

- 1. Ms. Ramya Deepika, Asst. Professor, ME Dept.
- 2. Ms. Usha J Asst. Professor, ME Dept.

### **Certifications and banners committee members**

- 1. Mr. Praveen Ronad Asst. Professor, ME Dept.
- 2. Mr. Abhilash Asst. Professor, ME Dept.
- 3. K. Nageshwar Rao Asst. Professor, ME Dept.

### **Hospitality committee Members**

- 1. K. Nageshwar Rao Asst. Professor, ME Dept.
- 2. T.Ravi Asst. Professor, ME Dept.

### **Advertisement Committee**

- 1. K.Rajshekar, Asst. Professor, ME Dept.
- 2. J.Sandep , Asst. Professor, ME Dept

### **Student Committee**

- 1. Swathi, M.Tech CAD/CAM
- 2. Akshay, M.Tech CAD/CAM
- 3. Mr Pradumn, IV Year Mech
- 4. Raghava, II year Mech
- 5. Sesha Sai, II year Mech



### **Roles Stage Committees members**

- 1. Stage Arrangement
- 2. Lamp Arrangement
- 3. Sound Systems Arrangement

### **Roles Certifications and banners committee members**

- 1. They are made responsible for poster and certificate design
- 2. Posting banners in the campus
- 3. Making Brochure
- 4. Arrangement of Participations kit

### **Roles of Hospitality committee Members**

- 1. Arrangement of Refreshments such as tea and snacks
- 2. Lunch arrangement to guests and participants

### **Roles of Advertisement Committee Members**

- 1. Distribution of brochures by post or in person to engineering colleges
- 2. Making of posters
- 3. Advertising about FDP in social media like facebook and watsapp official group

### **Roles of Student Committee Members**

- 1. Assist to all staff committee members
- 2. Anchoring
- 3. Helping in stage arrangement and hospitality
- 4. Advertising

### **STAGE 3: OBJECTIVES OF FDP**

With the aim of equipping faculty members with required skills and knowledge, **Mechanical Department** @ **SREYAS** pursues the Faculty Development Program as its primary objective with high priority to tackle 21<sup>st</sup> advancements in Engineering Education and Technologies

- This FDP was made to make the transmission of knowledge from the faculty to students highly effective with all the tools associated with the same.
- Understand the significance of alignment amongst the fundamental elements of effective teaching and learning
- > Be able to describe and choose from the signature pedagogies used in the thermal engineering education
- > Get motivated to use case method of teaching in appropriate learning contexts
- Become aware of preparations required for the successful use of case based approach in the field of HVAC



- Become aware of elements of a good research proposal and Patent
- > Get basic understanding of qualitative and quantitative data analysis tools and techniques
- Get motivated to publish in top-notch journals by understanding the expectations of editors of such journals

### **STAGE 4: FDP SCHEDULE**

## Day 01: 25<sup>th</sup> June 2018, Monday

| TIME                | EVENTS  |  |  |
|---------------------|---|--|--|
| 9:00 am to 10:00am  | Registration of Participants         1. Distribution of Registration Slip for participants         2. Distribution of participants kit(ID card, Scribbling pad ,Pen, Food Coupons)  |  |  |
| 10:00am             | INAUGURATION OF FDP   |  |  |
| 11:00 am to 11:15am | TEA BREAK   |  |  |
| 11:15 to 1:00 pm    | SESSION I         Topic       : Introduction to HVAC Industry and Building Services         Resource Person       : Mr. Chakradhar Majety         Founder Director at Dhanush EnggServices (India) Private Limited Dhanush         EnggServices (India) Private Limited   |  |  |
| 1:00 pm – 2:00 pm   | LUNCH BREAK   |  |  |
| 2:00pm to 4: 00 pm  | SESSION II         Topic       : Thermal Insulations         Resource Person       : A Ramchandar Raju         M Tech(Energy Systems) and MBA(Sales Management)         Into Business of sales of products in HVAC Field comprising         Thermal/Acoustic Insulations, Fans, Heat Recovery Wheels, ADP's etc.         Actively contributing in society Activities from 2007. |  |  |



# Day 02: 26th June 2018, Tuesday

|                     | SESSION III:  |                                |  |  |
|---------------------|---|--------------------------------|--|--|
|                     | Торіс   | : Design of Rotary Compressors |  |  |
|                     | <b>Resource Person</b>  | : Dr Suresh Akella             |  |  |
| 9:00 am to 10:00am  | PhD( Alberta Cana   | Principal, SIET                |  |  |
|                     | PhD( Alberta, Canada, M.tech(IITM),B.E(OU)<br>25 years of experience in MNC's (Tecumseh& Denison Hydraullics) R& D<br>and quality systems |                                |  |  |
|                     | 8 years of teaching experience  |                                |  |  |
|                     | Areas of interest: Design and analysis of products, modeling and simulation, process control using tagguchi methods and six sigma methods |                                |  |  |
|                     |   | SESSION IV:                    |  |  |
| 10:00am to 11:00am  | Topic: Performance of evaluation of air conditionersfor different refrigerants using different software tools                             |                                |  |  |
|                     | <b>Resource Person</b>  | : Dr Hadiya                    |  |  |
|                     |   | Professor, ME Department, OU   |  |  |
| 11:00 am to 11:15am | TEA BREAK   |                                |  |  |
| 11:15 to 1:00 pm    |   | SESSION V:                     |  |  |
|                     | Торіс   | : Energy Savings methods –     |  |  |
|                     |   | Heat Transfer Approach         |  |  |
|                     | <b>Resource Person</b>  | : Dr ASN Reddy                 |  |  |
|                     |   | Professor, ME Department, OU   |  |  |
| 1:00 pm – 2:00 pm   |   | LUNCH BREAK                    |  |  |
|                     | Topia   | SESSION VI:                    |  |  |
| 2:00pm to 4: 00 pm  | Торіс   | : Advances in HVAC Systems     |  |  |
|                     | <b>Resource Person</b>  | : Dr Azizuddin                 |  |  |
|                     |   | Professor, ME Department, OU   |  |  |
| 4:00 pm to 4:10pm   |   | FEEDBACK                       |  |  |
|                     |   | VALEDICTORY SPEECH             |  |  |



### **STAGE 5: BROCHURE MAKING AND ADVERTISEMENT**

| AICTE Sponsored One Week<br>Faculty Development Programme on<br>HEATING VENTILATION AND AIR<br>CONDITIONING<br>(HVAC-2018)<br>25.06.2018 to 30.06.2018<br>1. Name:<br>2. Designation:<br>3. Organization: | Chief patron<br>Sri A. Vinay Kumar Reddy, Chairman<br>Patron(s)<br>Sri Ch. Ravindranath Yadav, Secretary<br>Sri A. Hriday Reddy, Vice Chairman<br>Convener<br>Dr. Suresh Akella, Principal<br>Advisor<br>Mr. A C Sekhara Reddy, HOD, Mechanical | One Week Faculty Development Program                    |
|---|---|---|
| 4. Address:   |   | on  |
|   | Coordinator(s)  | HEATING VENTILATION AND AIR CONDITIONING<br>(HVAC-2018) |
| 5 Mahile No:  | Dr. PM Diaz, Assoc. Professor, Mech Engg<br>Mr. K Sainath, Assoc. Professor, Mech Engg<br>Mr. Y Krishnaiah, Assoc. Professor, Mech Engg   | (HVAC-2018)<br>25.06.2018 to 30.06.2018                 |
|   | Dr. A C Umamaheswer Rao, Assoc. Prof. Mech. Engg.<br>Mr. V Rama Krishna, Asst. Professor, Mech Engg   |   |
| 6. E-mail ID:   | Organizing Member(s)  |   |
| 7. Teaching Experience:   | Mr. V Rama Krishna Mr. K L N Murthy   |   |
| 8. Accommodation required: Yes/No   | Mrs. Ramya Deepika Mr. T. Ravi  |   |
| 9. DD Particulars: Rs. , Dt.  | Mr. B Sandeep Mr. Praveen B. Ronad  |   |
| 5. 55 FRICERIS, N, 51   | Mr. K Raja Sekhar Miss. P Usha Jyothirmai<br>Mr. Manjugath B Mr. P PraveenKumar   | THE REPORT OF THE REPORT OF THE REPORT OF THE           |
|   | Mr. K. Nageswararao Mr. J.Sandeep Kumar   |   |
| Declaration   | Mr. B. Sanjanna Mr. G. Nagesh<br>Mr. D. V. Paleshwar Mr. M A S. R. Abbilash   | And the second second second second second second       |
| The above information provided is true to the best of<br>my knowledge. If selected, I agree to abide by the rules and   | Mr. M.P. S.K.Abhash<br>Mr. M.Purushothamreddy   | Organized   |
| regulations of the course and shall attend the course for the   | Address for Correspondence  | by  |
| entire duration.  | Mr. K. Sainath  | Department of Mechanical Engineering                    |
| Place: Date:  | Department of Mechanical Engineering  | SREYAS INSTITUTE OF                                     |
|   | Sreyas Institute of engineering and Technology,<br>Nagole – 500068, Telangana.  | ENGINEERING AND TECHNOLOGY                              |
|   | Mobile: 9848093630  | Nagole, Hyerabad - 500068                               |
| Applicant Signature Signature & Scal of<br>Head of the Institution  | E-mail: me.hod@sreyas.ac.in   | Website: www.sreyas.ac.in                               |

#### About the Institute

Sreyas Educational Society sponsors Sreyas Sreyas Educational Society sponsors Sreyas Institute of Engineering & technology established in the year 2011. It is located in the heart of the Hydershad city at Nagole about 5 km from metro station on Nagole. Sreyas Institute of Engineering and Technology has been in the forefront imparting high quality technical education. State of the art infrastructure in all branches of engineering, dedicated and qualified staff, highly conducive environment for teaching learning process are the Alimatics of this professionally managed institution. The institute is an affiliated to NTUH and accredited by NAAC. The institute is affiliated to Jawaharlal Nehru Technological University, Jawaharlal Nehru Technological University, Hyderabad (JNTUH). The Institute offers Civil Engineering, Mechanical Engineering, Electronics and Communication Engineering and Computer Science and Engineering courses.

#### About the Department

The department of Mechanical Engineering was established in the year 2011 and offers UG & PG programs in Mechanical Engineering. The Department has qualified, dedicated, experienced and trained faculty with a deep sense of commitment towards the students and Institution. Teaching faculty with proficiency in various subjects motivates students to participate in research activities and skill development programs. The Department has state of the art laboratories, R&D lab and labs with well equipped hardware and software facility.

#### About the FDP

The Faculty development Program on HVAC focuses on Air Conditioning, Heat Transfer and Energy Conservation as they assess the current state-of-the-art and roadmap crucial areas for future research. The FDP will become a solid platform for faculty from different colleges and industry to share their research findings, exchange ideas, discover their research indings, exchange ideas, discover novel opportunities, meet with colleagues to broaden their knowledge and bridge the gap between academia and industry. The various topics are Air Conditioning, Heat Transfer and Energy Conservation. This Faculty Development Programme is aimed to provide an excellent platform for an in-depth discussion and interaction on advanced control techniques used for renewable on advanced control techniques used for renewable energy power management

- Gas power cycles
- Internal Combustion Engines Steam Nozzles
- Steam Turbines
  - Reciprocation and Rotary Air
- Compressors
- Refrigeration Air Conditioning

**Resource Persons** 

Resource persons are from ISHRAE and Senior faculty from OU & NIT (W).

### Eligibility

The program is intended for the faculty of AICTE approved Engineering colleges, Research Scholars and Industry person.

#### Important Dates

Last date for receipt of Application : 20-06-2018 Intimation of selected participants by mail · 22-06-2018

#### **Registration and Fee Details**

AICTE Approved institute faculty : 500/-: 1000/-: 250/-PG & Ph.D. Scholars

Registration fee should be paid through demand draft, drawn in favor of "PRINCIPAL SIET" payable at Hyderabad from any Nationalized Bank. Early information on e-mail for registration is appreciated.

Technical Advisory Committee

- 1) Dr. RVSS. Prasad RVSS, ISHRAE
- 2) 3)
- Mr. PRK. Sundar, ISHRAE Mr. SandeepGalhotta, ISHRAE Mr. PandurangPrabhu, ISHRAE Dr. P. Ravinder Reddy, Principal, CBIT Dr. S. Rajesham, RGUKT-Basar 4) 5) 6)



### **STAGE 5: PROGRESS REVIEW MEETING WITH ORGANIZING MEMBERS**

Meeting was held at department level headed by Mr. ACS Reddy sir and convener Mr. K Sainath to review the progress of FDP which was attended by all department staff and student members

### **STAGE 6: FDP DAY**

One week faculty development programme on "EMERGING TRENDS IN TERMAL ENGINEERING" was held at the Department of Mechanical Engineering of Sreyas Institute of Engineering and Technology. The FDP aims to provide opportunities to faculty members and students to enrich their teaching skill and research in the field of thermal engineering. The Programme also intends to develop the knowledge of participants on opportunities at ISHRAE for faculty and students. The FDP was attended by 31 participants from faculty members and students.

### SCHEDULE OF INAUGURATION

| TIME         | : 10:00am 25 <sup>th</sup> June, Monday            |  |  |
|--------------|--|--|--|
| Venue        | : Sreyas Institute Auditorium                      |  |  |
| Chief Patron | : Sri Anantula Vinay Kumar Reddy, Chairman         |  |  |
| Patrons      | : Sri Ch. Ravindranath Yadav, Secretary            |  |  |
|              | Sri N. Sharath Reddy, CEO                          |  |  |
|              | Sri A. Hriday Reddy, Vice-Chairman                 |  |  |
| Chef Guest   | : Mr.A Rama Chandra Raju, ISHRAE                   |  |  |
| Principal    | : Dr Suresh Akella                                 |  |  |
| HOD          | : Mr. ACS Reddy, ME                                |  |  |
| Convener     | : Mr.K. Sainath, Associate Professor, ME           |  |  |
| Anchor       | : Mr. Pradyumn                                     |  |  |
| ▶ 10.00 :    | Welcoming of guests and delegates                  |  |  |
| ▶ 10.05 :    | Presentation of bouquet to dignitaries on dias     |  |  |
| ▶ 10.10 :    | Lighting of Lamp                                   |  |  |
| ▶ 10.15 :    | Prayer song by Ms. Harikirthana                    |  |  |
| ▶ 10.20 :    | Introduction about the department by HOD           |  |  |
| ▶ 10.25 :    | Address by Chairman Sri A Vinay Kumar Reddy        |  |  |
| ▶ 10.30 :    | Address by Vice Chairman Sri Anantula Hriday Reddy |  |  |
| ▶ 10.35 :    | Address by Principal Dr Suresh Akella              |  |  |
| ▶ 10.40 :    | Address by Mr. A Rama Chandra Raju, ISHRAE         |  |  |
| ► 10.45 ·    | Momento presentation to chef quest                 |  |  |

 $\succ$  10.45 : Momento presentation to chef guest

▶ 10.50 : Hon'ble Chief Guest and other dignitaries leaves venue



### **INAUGURATION OF FDP**









Lightning of lamp and inaugural address by chief guest

Mr. A Ramachandra Raju, ISHRAE



### **SESSION ONE**

### **Topic** : Introduction to HVAC Industry and Building Services

### **Resource Person: Mr. Chakradhar Majety, ISHRAE**

Founder Director at Dhanush EnggServices (India) Private Limited Dhanush EnggServices (India) Private Limited





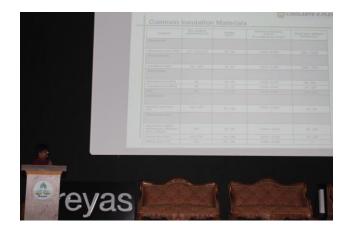
### **SESSION TWO**

**Topic** : Thermal Insulations

### Resource Person : A Ramchandar Raju

M Tech(Energy Systems) and MBA(Sales Management)

Into Business of sales of products in HVAC Field comprising Thermal/Acoustic Insulations, Fans, Heat Recovery Wheels, ADP's etc.







### **SESSION THREE**

### Topic : Design of Rotary Compressors

**Resource Person** : Dr Suresh Akella

Principal, SIET

PhD( Alberta, Canada, M.tech(IITM), B.E(OU)

25 years of experience in MNC's (Tecumseh& Denison Hydraullics) R& D and quality systems 8 years of teaching experience



Dr Suresh Akella, Principal delivering a topic

### **SESSION FOUR**

**Topic** : Performance of evaluation of air conditioners for different refrigerants using different software tools

**Resource Person** : Dr Hadiya, Professor, ME Department ,OU







### **SESSION FIVE**

### Topic : Energy Savings methods – Heat Transfer Approach

**Resource Person** 

### : Dr ASN Reddy, Professor, ME Department, OU



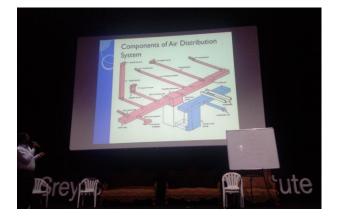
Dr A S N Reddy, Professor OU, Delivering topic in energy savings by heat transfer approach Dr ASN Reddy sir interacting with students after his lecture Birthday Celebration of our Principal Dr. Suresh Akella



### **SESSION SIX**

Topic: Advances in HVAC Systems

**Resource Person** : Dr Azizuddin, Professor, ME Department, OU





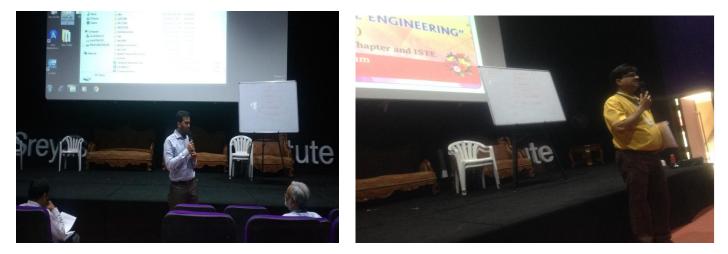
### PARTICIPANTS



Participants from academic, industry and student community at FDP



### **VALEDICTORY OF FDP**



Shri A Hriday Reddy, Vice-Chairman Addressing the participations and Mr. K. Sainath, Associate professor, Department of mechanical engineering and Convener Giving closing remarks about FDP

### **GROUP PHOTO**



Department of Mechanical Engineering Staff with Mr. A Hriday Reddy, Vice Chairman, Dr. Suresh Akella, Principal and Resource Persons at the valedictory function