Date: 25.05.2018

To,

The Principal, ATME college of Engineering, Mysuru-570.028

#### Through,

Head of the Department, Department of Mechanical Engineering, ATME College of Engineering, Mysuru-570 028

From,

Thejkumar J Asst. Professor, Department of Mechanical Engg., ATMECE

Dear Sir,

Subject: Request to reimburse the Expenditure towards the Workshop attended. with Respect to the above Subject, I Thejkumar J attended the one-day work Shop on "New Model Curriculum for the First Year BE-CBCS detailed Syllabus (2018-19)" held at Sahyadri College of Engineering & Management at Mangaluru on 19.05.2018.

A copy of report has been Attached along with this letter for your kind information. Also, I request you to reimburse the expenses incurred towards the participation of the workshop. A copy of bus tickets is also Attached with this mail.

Dearness Allowance (DA)	360
Travelling Expenses	1233
Total	enclosed & fourty torsee Ruppers
one toousand dour on	

oply

Thanking You,

Forwarded to The principal for Kind approval. Certatter 1/2018

Approved Xul estetie.

Yours faithfully,

Thejkumar J

ATME		
atme College of Engineering		ALAN UKAS
No.	JCHER	Date: 26/05/2018
Name of Work: WOIKShop		and and a second s
Head of Account :		
Name of the Party :		. 1
Received with thanks a sum of Rs. $1433$	(Rupees On	e Thungad tour
hunger thiry three pas advance / 1	part / full payment towards	"New model
Chapter I and Mar The Lit	IT UONA DE-UD	() unon a starting
(2018-19) held on 20/05/2 Mangalore	cors ar sanyad	U college Zenb 4 manufa
by Cash / Cheque no.	For	ATME
Treside-6	10.	
Receiver's Signature	,	Authorised Signatory
Receiver's Signature		
Sabyadri College of Engineering & M ಕಾವೇರಿ ಗ್ರಾಮೀಣ ಬ್ಯಾಂಕ್ KAVERI GRAMEENA BANK	Mellahaliy Branch, Mellahaliy Post., Mysore Tq. & Dist 571 010	u on 19.05.2018. Valid for three months from the date of ins [200520] D D M M Y Y Y या धारक को Or Be
Pay Theikunas	1. 1. A 1.4.	
Rupees and One thousand ofpar		ny 14- Hai ati ₹ 1433/-
• A	-1 7 W	
S.E. 85025936084		
C6S BRANCH		Kuz te.
		Please sign above
"OD8583" 570	0062641	10
le fattat	-2018	і пејкитаг ј
25/05	and the second se	

Approved Autoristalis.



# ATME COLLEGE OF ENGINEERING DEPARTMENT OF MECHANICAL ENGINEERING



#### Date: 21-05-2018

# **REPORT OF ONE DAY WORKSHOP**

on

## "AICTE MODEL CURRICULUM"

Visvesvaraya Technological university (VTU) is organised one day workshop on New Model Curriculum for the First Year BE-CBCS detailed Syllabus (2018-19) as per outcome Based Education (OBE) format including Course outcomes (COs) and Blooms Taxonomy.

The work shop is organised in three zones of VTU based on the regional zones,

1. Belagavi and Kalburgi,

2. Belagavi and

3. Mysuru.

The faculties of Mysuru zonal Engineering colleges attend the workshop on 19.05.2018 at Sahyadri College of Engineering and Management, Mangaluru.

The Schedule for the programme is as follows,

Registration & Breakfast: 9.00-10.00 a.m
 Inauguration & pre-Lunch Session: 10.00- 12.30 p.m
 Post Lunch Session: 2.00-4.00 p.m (Department wise)

The programme was chaired by the Honble' Vice chancellor of Mangalore university Prof. K Byrappa and other dignitaries from VTU and Sahyadri College of Engineering & Management. After the inaugural of the event, the speakers give the insight about the OBE education system.

The post Lunch Session was organised in departmental levels, and Mechanical Engineering department organised the meeting to discuss the first-year syllabus for mechanical Engineering.

Dr. R P Reddy, Chairmen BOS mechanical engineering briefed about the new curriculum and efforts made to frame the new syllabus according to the AICTE proposed model Curriculum. Dr. Abdulla Sharif, member of BOS briefed about the syllabus and scheme of I-year subjects.

Later the meeting has opened for discussions. The faculties are raised their concerned about the elimination of Elements of Mechanical Engineering and requested the BOS members to retain the subject at all possible cost. The outcome of the meetings are as follows,

			nics, see		1 OF	in the	echnology	ngineering,	86-2440-1			
ering	- 562 157	*	(RTEICT-2018)		CHE PROBABILIT	CONFIDENCE	Electronics, Information & Communication Technology	cs & Communication Er	PLORE ISBN : 978-1-53	- Maria	Dr. Suresha General Chair Principal, SVCE, Bengaluru	
shwara College of Engineering	Ingineering College of the Year 2016" by Higher Education Review Permanently Affiliated to VTU, Belagavi & Approved by AICTE, New Delhi) by NBA*, Vidyanagar, Kempegowda International Airport Road, Bengaluru -	nics & Communication Engine (Accredited by NBA)	e on Kecent Technology		ss. SH RUTHIP has Presented the Paper entitled <u>FINDING</u> THE PROBABILITY OF	DATA MINING APPROACH CALLED		8, organized by Department of Electronics & Communication Engineering,	ıg, Bengaluru, Karnataka, India. IEEE XPLORE ISBN:978-1-5386-2440-1	- Svats	Dr. Shivashankar Convenor HoD, E&CE, SVCE, Bengaluru	
enkateshwa	"Engineering College of the Year 2016" by Higher Education Review] (Permanently Affiliated to VTU, Belagavi & Approved by AICTE, New Delhi) Accredited by NBA*, Vidyanagar, Kempegowda International Airport Road, Bengaluru – 562 157	5	2018 3 EEE International Conference Information & Communication	computer society	Dr./Prof./Mr./Mrs./Mi	PATIENT BEING DEMENTED USING, DATA	"2018 3" IEEE International Conference on Recent Trends in	(RTEICT-2018)" held on 18 <sup>th</sup> - 19 <sup>th</sup> May 2018, orga	Sri Venkateshwara College of Engineering, Beng	Q. M. I. M. J. M.	à P	
Sri V			20 20 20 20 20 20 20 20 20 20 20 20 20 2		This is to certify that of <u>ATMELE</u>	PATIENT BEI	"2018 3 <sup>rd</sup> IEEE Ir	(RTEICT-2018)"	Sri Venkateshwo			

7

UNIVERSITY OF MYSORE UNIVERSITY COMPUTER SCIENCE, MANASAGANOTRI, MYSUR-570 006 Is ANASAGANOTRI, MYSUR-570 006 Is ANASAGANOTRI, MYSUR-570 006 Is ANASAGANOTRI, MYSUR-570 006 Is ANASAGANOTRI, MYSUR-570 006 Is ANASAGANOTRICE CONSECUTIVE LAN Two Days Pre-Conference Workshop on Image Classification Is CONSECUTIVE WITH Its Intergential Conference of NAVA ANALYTICS & LEARING 2018 (DAL'16) 28 <sup>th</sup> & 29 <sup>th</sup> March 2018 <b>CERTIFICATE</b> This is to certify that SultTHA PATEL MS, RESEARCH SCHOLAR of <u>VTU</u> has actively participated in the two days pre-conference workshop on "Image Classifi- cation" held at the Department of Studies in Computer Science, University of Mysore, Mysuru during 28 <sup>th</sup> & 29 <sup>th</sup> March, 2018. Mysuru during 28 <sup>th</sup> & 29 <sup>th</sup> March, 2018. Chairman, DS in CS & (D S GURU)
--

To

The Principal ATME college of Engineering Mysuru

From Raghu Assistant Professor Dept of Mechanical Engineering Mysuru

#### Through

The HOD Department of Mechanical Engineering

Respected Sir,

Sub: Request for permission to attend Two day FDP at VVCE, Mysuru

With reference to above subject, I am interested to attend Two days FDP on "HEAT TRANSFER & ITS APPLICATIONS" at VVCE, Mysuru on March 2-3, 2018. I was handled the subject of Heat & Mass transfer for 6th semester. This FDP will helpful for enhancement of knowledge in the subject. So I am requesting you to grant me permission to attend this programme.

Thanking you

Yours faithfully

Forwarded to the principal with a request to provide permittion & do needful. With a request to provide permittion & do needful. (e. Lattita) 26/2/18

Date: 26/02/2018 Place: Mysuru

E Μ Т atme College of Engineering Date : 13 /04/2018 VOUCHER No. Name of Work: FDP Head of Account : Name of the Party: Mr. Raghu = mr. Girishkuman GS Received with thanks a sum of Rs. 1000]\_\_\_\_\_(Rupees One thous and only .....) as advance / part / full payment towards .FDP attended Knsinening Myson at vidyavardhaka collese of on 02/03/2018 (Heat transfer 4 its Applications) by Cash / Cheque no. 008582 For, A T M E Authorised Signatory Receiver's Signature Respected Sir. Valid for three months from the date of instrumen ಕಾವೇರಿ ಗ್ರಾಮೀಣ ಬ್ಯಾಂಕ್ Mellahally Branch, Mellahally Post., Mysore Tq. & Dist. - 571 010 13042018 **KAVERI GRAMEENA BANK** D DMM Y KMH या धारक को Or Bearer Kaghy Pay 00 Rupees out core thong 10001-₹ अदा को S.B. A/c. No. 85025936084 **CBS BRANCH** ease sign above "008582" 570006264" 10

Session I: 10:30 AM -11:30 AM - Dr. T R Seetharam, Chair Professor in Thermal Engineering, PESIT, Bengaluru, has delivered talk on Free Convection Heat Transfer.

Session II: 11:45 AM -12:45 PM - Dr. T R Seetharam, Chair Professor in Thermal Engineering, PESIT, Bengaluru, has delivered talk on Forced Convection Heat Transfer.

Session III: 02:00 PM -03:00 PM - Dr. K N Seetharam, Chair Professor in Thermal Engineering, PESIT, Bengaluru, has delivered talk on Radiation Heat Transfer.

Session IV: 03:15 PM -04:15 PM - Dr. K N Seetharam, Chair Professor in Thermal Engineering, PESIT, Bengaluru, has delivered talk on Boiling & Codensation, Different regimes in Boiling and types of Condensation like filmwise & dropwise condensation.

The program was ended with a formal Valedictory by Dr. Mohan Krishna and participants had given their feedback about the program.

#### A Report of

Two day Faculty Development program on

# "Heat Transfer and its Applications"

A Two day Faculty Development Program on "Heat Transfer and its Applications" was organized at Vidhya Vardhaka College of Engineering, Mysuru, by the department of Mechanical Engineering during 2<sup>nd</sup> & 3<sup>rd</sup> March 2018. The Program was intended to impart knowledge on the basic concepts, governing laws, principles and applications of heat transfer.

#### The salient topics covered in this program are:

- Steady and Transient Conduction
- Numerical Analysis of Conduction
- > Forced and Natural Convection
- Radiation Heat Transfer
- Heat Exchangers
- Boiling and Condensation
- > Application of CFD to Heat Transfer

#### **RESOURCE PERSONS**

#### Dr. T Sundarrajan

Institute Chair Professor, IIT, Madras

#### Dr. G S V L Narasimham

Principal Research Scientist, IISc, Bengaluru

#### Dr. T R Seetharam

Chair Professor, PESIT, Bengaluru

#### Dr. K N Seetharamu

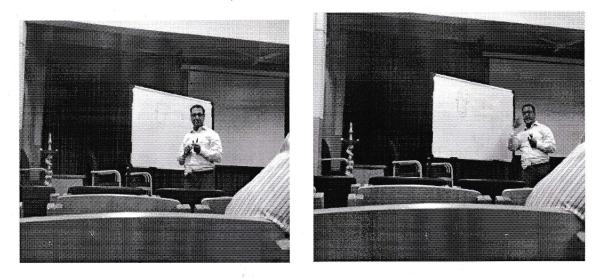
Chair Professor, PESIT, Bengaluru

### DAY-1

#### Date: 02-03-2018

The program was inaugurated by the chief guest and the resource person **Dr. T Sundararajan**, Professor, IIT, Madras. And Dr. L J Sudev, HOD, Department of Mechanical Engineering and Dr. Sadashive Gowda, Principal, VVCE, Mysuru. were also present.

Session I: 10:30 AM -11:30 AM - Dr. T Sundararajan, Professor, IIT, Madras has delivered a talk on Steady state heat Conduction, Fourier's law of heat conduction, Boundary conditions of  $1^{st}$ ,  $2^{nd}$  &  $3^{rd}$  kind.



Session II: 11:45 PM -12:45 PM - Dr. T Sundararajan, Professor, IIT, Madras, has delivered a talk on Unsteady Heat Conduction, Fins with different conditions like with tip insulated, infinitely long fin.

Session III: 02:45 PM -03:00 PM - Dr. GSLV Narasimham, Principal Scientist, IISC, Bengaluru, has delivered a talk on Numerical Analysis of Conduction

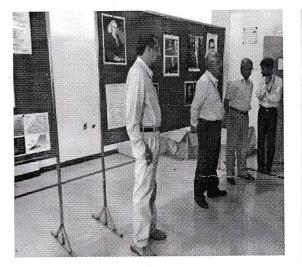


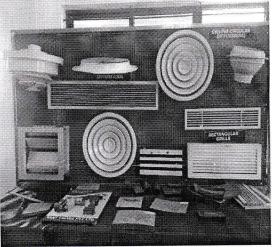
Session IV: 03:15 PM -04:15 PM - Dr. GSLV Narasimham, Principal Scientist, IISC, Bengaluru, has delivered a talk on Overview of Heat Exchangers.

#### DAY-2

#### Date: 03-03-2018

Before the first session to begin, all the participants have visited to **VVCE ISHARE showcase** from 09:00 AM to 10:15 AM. This showcase comprises various devices such as different types of Pumps, Compressors, Air Conditioner, Control Valves etc.







From

& neha. N.P. Asst Port. Dept of LSE ATMECE, Myauni.

Approved to pay Registration Jept tura ue

4-12/1



The Principal ATMECE, Mysum

Through The HOD Rept of USE, ATMECE, Mysuru.

Respected sir, Subject: Requesting to sanction the negistration dee for the moskshop. As I will be handling the subject "couptoprighty, Altacok security and cybes lace for VI semester students in the coming semester, i request you to permit me to attend a moskshop on this subject organized at VXCE, Mysume from 22<sup>nd</sup> to 24<sup>th</sup> Jan 2018. This will help me to teach the subject more effectively. I also sequest you to sponsos my registration to the moskshop by sanctioning an amount of song Re goof- (Nine hundred only) and delige. Thanking you yours faithfully. For worded For your hind information and NO aitim SNEW-N.P.

ham 12 01/18. Mysore. Prakruthi \$ Asst Prof Dept of CSE ATMECE, Mypore Approved to pay To Palncipal ATMECE, Mysore Repistration fee I dept fund Through. 12/11/18 The HOD Dept of CSE ATMECE, Mysore "Respected Sir,. Subject: Requesting to sanction the registration fee for the work shop. As I well be handling the subject Cryptography Netroork security and Cyber bas, for VI semester Studente in coming semister, I sliquest you to pemit se to attend a workshop on this subject organized at VUCE, Mysore from 22" to 24th Jan 2018. This well help me to teach the subject more effectively I also request you to sponsor my registration amount by sanctioning the omount of Re 9001- [Wine hundred only] much oblige. Thanking you your faithfully Forwardel Prakruthi - S Por your kind information aution and needful Cronde 12/1/18

C	6
FROM	

Kinan B Assistant Phofuson Dept of CSE Mysunn ATMECE, MYSMU 12/01/2018 Approved to pay To Registroling tee Imm. The Phincipal, АТМЕСЕ, МУЗМИ Dept tung Through , The Hop Dept of CSE, АТМЕСЕ, МУЗМИ mgistnation fee fon to sanction the Subject : Requesting the wonkshop on SGA CS/OS Ruspected Sin, With nespect to the above subject, as i will be handling the subject " 35 f CD/05" for VI semester students in the coming semester, I request you to permit me to attend a wonkshop on this subject organized at Global Academy of Technology, Bengalunu from 17th 60 19th January 2018. This Will help me to trach the subject mom effectively. I also nequest you to sponson my neglituation to the wonkshop by sanchioning amount of Ro 1500/- (One Thousand of Five Hundred only). an Please oblige the above. Forwarded Yound faithfully Thanking you for kind information and from B needful action Pressle

trom, Staff members Depuetment of ECE ATME college of Engineering Tarough the HOD To, The Principal ATME College of Engineering Respected Sin, Sub; Remuneration details with respect to above subject the faculties of Department of ECE have attended faculty development programmes in variales institutions. In this regard we kindly request you to refund the registration amount, hand oblige. Thanking you,

Yours Faithfully P.

\* Details are enclosed below

C

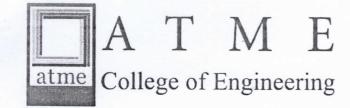
2

forwanded to Principal Sir 28/5

SI NO.	Name of the faculty	Registration & mount	Remarks
1,	Daushini. M. B /	12501-	FOP at ATMECE
D.	Dayshini.M.B.	27501-	Industrial Writ
3.	Manjunath. K.	10001-	FDP at Belogavi
de.	Umanaheah & N/	1000 [-/	FDPat Belagavi
5.	Justin Fr	10001-	Network simulator FOP at NIE
	Provide the Provide Pr	High A Bright	
6.	shalini.V.S	1000	FDP at NIE
- <b>4</b>  .	Pradeep kurasi k Y		FDP at
	Priya MS Amrith Poonacha Guruprasad	15001-	mudder ahalli Bangalore
8.	Abhilash G L Chandrashekar PJ	3000[	FDP on Model
	total	12,500/-	
	18/5/18		

ł

1



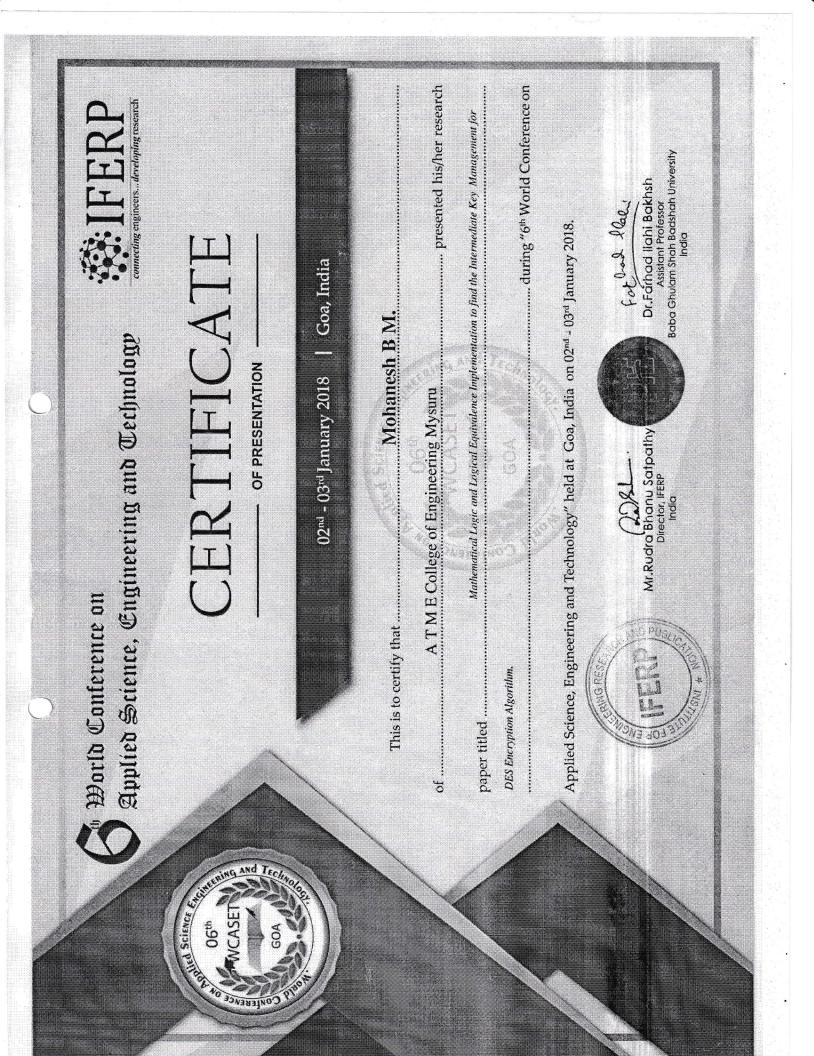


#### RECEIPT

Received ₹1250 from **Ms. DARSHINI M B** of Department of Electronics and Communication Engineering, ATMECE, Mysuru, as Registration Fee for One Week Zonal Level Faculty Development Programme on "Industrial Automation" held at Department of Electrical and Electronics Engineering, ATME College of Engineering, Mysuru from 16<sup>th</sup> to 20<sup>th</sup> January 2018.

arathe 20.1.1

Dr. Parthasarathy L Dr. PARTHASARATHY L. Professor and HOD Dept. of Electrical & Electronics Engineering ATME College of Engineering, Mysuru



Date: 18/12/2017

From, Dr. Rathnakar G Professor & Head Dept. of Mechanical Engg. ATMECE, Mysuru.

To, The Principal ATMECE, Mysuru.

Respected sir,

(0)

C

(

Subject: Permission to attend International Conference at CIT Mandya- Regarding.

With reference to the above subject two papers are selected in International conference CIT Mandya, papers are going to be presented by the co-authors <u>Prof. Swarnakiran S and Prof. Yashwanth N</u> in the Conference. Hence in this regard I request your kind good self to sanction permission to attend the conference and do needful. Further I request you to sanction the registration amount from the department and do needful.

Thanking you

Yours faithfully Hata H. d. 812 2017

Department of Mechanical Engineering ATME College of Engineering, Mysuru



i) Registration fee to be paid from dept Association found.

No. Name of Work: Head of Account: Name of the Party: SWARNAKIRAN.S 4 YASH Received with thanks a sum of Rs. <u>4000/-</u> (R <u>Aufers</u> ) as activance / part / full payn <u>Conferences</u> held at <u>C77</u> ,	nent towards <u>Trégrinational</u> mandya <u>on 27-28<sup>th</sup></u>
by Cheque no. 000729	For, ATME
Receiver's Signature	Authorised Signatory



Emerging Trends in Mechanical Engineering Proceedings of the International Conference, ETME-2017, 27 & 28 December, 2017, Pg: -128-136

# INVESTIGATIGATIONS ON RHELOGICAL PROPERTIES OF POLYMER-CERAMIC FIRE RETARDANT COMPOSITES

Dr. Rathnakar.G<sup>1</sup>, Mr. Yashwanth.N<sup>2</sup>

<sup>1</sup>Professor, Dept. of Mech. Engg, ATME College of Engineering, Mysuru. <u>rathnakar.g.devaru@gmail.com</u> <sup>2</sup>Assistant Professor, Dept. of Mech. Engg, ATME College of Engineering, Mysuru. <u>contactyash89@gmail.com</u>

#### Abstract

In the present work an attempt is made to develop fire retardant polymer material using the polymer nano composites. Fire retardant minimizes the risk of fire starting and if once started of spreading. Fire retardants exhibit an excellent property of reducing the spreading of fire, in turn reduces the fire hazards and are proven to save lives and protect property and are therefore an essential part of fire protection. Polymers and plastics are highly prone to fire and catch fire easily and continue to burn if fire retardants are not used. The safe application of plastics in our modern society would not be feasible without the use of flame retardants. The "side effects" of the fire retardants have to be taken into account in a balanced manner. This paper attempts to evaluate the reheological and DSC properties of fire retardant polymers.

Key words: Composites, Rheology, Dynamic Mechanical Analysis (DMA), Differential Scanning Calorimetry (DSC).

#### **1.0 Introduction**

The development of science and technology provides the availability of sophisticated products but concurrently increases the use of combustible materials [1]. Polymeric materials are commonly used in everyday life increasing fire hazards and so flame retardants are very often incorporated into them to limt their flammability. Fire-retardant polymers are polymers that are resistant to degradation at high temperatures. There is need for fire-resistant polymers in the construction of small, enclosed spaces such as skyscrapers, boats, and airplane cabins. In these tight spaces, ability to escape in the event of a fire is compromised, increasing fire risk. In fact, some studies report that about 20% of victims of airplane crashes are killed not by the crash itself but by ensuing fires.





Emerging Trends in Mechanical Engineering Proceedings of the International Conference, ETME-2017, 27 & 28 December, 2017, Pg: -128-136

Fire-safe polymers also find application as adhesives in aerospace materials, insulation for electronics, and in military materials such as canvas tenting.

As an example, in 2004, there were 508 fire-related deaths in the UK, compared with 593 in 2003 [2]. The highest number recorded was 1096 deaths in 1979. Through the 1980s and 1990s there was a general downward trend in fire-related deaths. This trend can be linked to the toughening of the legislation in terms of fire hazards combined with the growing use of flame retardants, global demand for flame retardant is forecast to increase by 4.8% per year to 2.2 million metric tons in 2009 [3] further there is a possibility that there will be increase in the demand for fire retardant materials in the future. The flammability behavior of polymers is defined on the basis of several processes and/or parameters, such as burning rates (solid degradation rate and heat release rate), spread rates (flame, pyrolysis, burn-out, smolder), ignition characteristics (delay time, ignition temperature, critical heat flux for ignition), product distribution (in particular, toxic species emissions)[4], smoke production, etc. The objective is then to inhibit or even suppress the combustion process acting chemically and/or physically in the solid, liquid or gas phase. One can interfere with combustion during a particular stage of this process, e.g. During heating, decomposition, ignition or flame spread. Some fire-safe polymers naturally exhibit an intrinsic resistance to decomposition, while others are synthesized by incorporating fire-resistant additives and fillers. Current research in developing fire-safe polymers is focused on modifying various properties of the polymers such as ease of ignition, rate of heat release, and the evolution of smoke and toxic gases.

Three approaches can be considered to reduce the flammability of polymers:

1. To use inherently flame retardent polymers (e.g. poly (tetrafluoroethylene), polyoxazoles, poly-(ether-ether ketone) or polyimides); [5]

2. To chemically modify existing polymers (e.g. copolymerisation of flame-retardant monomer into PET chains.[6]

- 3. Organic/inorganic hybrid polymers such as epoxy resin prepared from silsesquioxanes [7].
- 4. To incorporate flame retardants into polymers via usual procedures. [8]

#### 2.0 Objective of present work:

- ➢ To prepare ceramic dispersed polymer composites with fire-retardant properties and sufficient mechanical properties to withstand the heat effect for reasonable time.
- The issue is to be addressed by addition of both micro and nano level size addition of the ceramics.



Emerging Trends in Mechanical Engineering Proceedings of the International Conference, ETME-2017, 27 & 28 December, 2017, Pg: -128-136

- Polymer ceramic blends from the listed materials would be prepared with reinforcing ceramic particles mostly in the nano-metric scale size so that the required properties are achieved with small addition of the reinforcements.
- To study the Synergistic effect of halloysite nanotubes on the flammability properties of acrylonitrile-butadiene-styrene composites.

#### 3.0 Methodology:

In the present work it is proposed to use the following materials: for polymer matrix.

- 1. High density polyethylene (HDPE)
- 2. Epoxy

For the ceramic fire retardant it is proposed to use:

- 1. Clay
- 2. Carbonnano tube

Poly (acrylonitrile-co-butadiene-co-styrene) was obtained from Aldrich, containing acrylonitrile (25% pellets) and having a melt flow index of 6 g (10 min) -1 (230 °C/3.8 kg). Halloysite nanotubes HNTs (ultrafine grade) were obtained from Imerys Tableware Asia Limited, New Zealand (wt%): SiO2, (49.5%); Al2O3,(35.5%); Fe2O3, (0.29%); TiO2(0.09%), Ammonium polyphosphate (APP),Melamine polyphosphate (MPP) were obtained from Universal Chemtech. Co., Korea. Pentaerythritol (98%) was purchased from Aldrich. The extruded material was cut into required shape and was subjected to various tests as follows.

#### 4.0 Experimentation:

The required polymer nano particle mixes were prepared in HAAKE mixer shown in Fig.1, to study the Synergistic effect of halloysite nanotubes on the flammability properties of acrylonitrile–butadiene–styrene composites. The following compositions of the required polymer Mixes with additives were made in the HAAKE mixer.





Emerging Trends in Mechanical Engineering Proceedings of the International Conference, ETME-2017, 27 & 28 December, 2017, Pg: -128-136

#### 4.1 Haake Mixer



#### Fig. 1 HAAKE MIXER

HAAKE Rheomix Lab Mixer, torque rheometer platform are focused on batch testing of many highly viscous substances. Intelligent modular torque rheometer system are used for the simulation of industrial processes in the lab or pilot plants. The small-scale mixer can characterize materials like polymers, elastomers, additives and fillers to avoid problems in their production.

#### 4.2 DMA (Dynamic Mechanical Analysis):

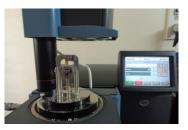


Fig2: DMA TEST RIG

Dr. Rathnakar





Emerging Trends in Mechanical Engineering Proceedings of the International Conference, ETME-2017, 27 & 28 December, 2017, Pg: -128-136

Rheological properties of the mixes were studied by DMA shown in Fig. 2. Dynamic mechanical analysis (abbreviated as DMA, also known as spectroscopy) is a technique used to study and characterize materials. It is most useful for studying the viscoelastic behavior of polymers. A sinusoidal stress is applied and the strain in the material is measured, allowing one to determine the complex modulus. The temperature of the sample or the frequency of the stress are often varied, leading to variations in the complex modulus, this approach can be used to locate the glass transition temperature of the material, as well as to identify transitions corresponding to other molecular motions.

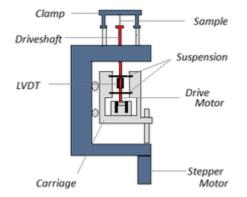


Fig.3: General Schematic of a DMA instrument

#### 4.3 Rheology:

Rheology plays an important role in influencing the quality of the polymer mixes. Thus rheological properties of the mixes were studied first. It is the branch of physics that deals with the deformation and flow of matter under stress. It is particularly concerned with the properties of matter that determine its behavior when a mechanical force is exerted on it.

The viscoelastic character of polymer melts reflects the entangled microstructure and plays an important role in property development and in flow stability.

The relationship between the structure and rheology of a polymer is of practical interest for two reasons:

• Firstly, rheological properties are very sensitive to certain aspect of structure and they are simpler to use than analytical methods, such as nuclear magnetic resonance.



Dr. Rathnakar



Emerging Trends in Mechanical Engineering Proceedings of the International Conference, ETME-2017, 27 & 28 December, 2017, Pg: -128-136

• Secondly, it is the rheological property that governs the flow behavior of polymers when they are processed in the molten state.

#### 4.4 DSC (Differential scanning Calorimetry):

Thermo analytical technique in which the difference in the amount of heat required to increase the temperature of a sample and reference is measured as a function of temperature.

Various Applications:

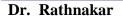
- Fusion and Crystallization events
- Glass transition temperatures (Tg)
- Study oxidation
- Other chemical reactions.

#### 5.0 Results and discussion:

SI NO.	Wt % HNT	Wt % ABS
1.	1	99
2.	3	97
3.	4.75	95.25

<sup>5.2</sup> Table 2: ABS with Cloisite 30B Batches

SI NO.	Wt % Cloisite 30B	Wt % ABS
1.	1	99
2.	3	97
3.	4.75	95.25



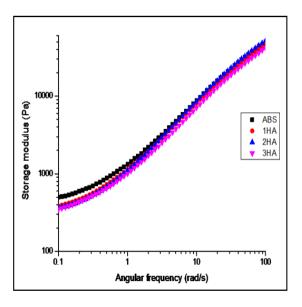


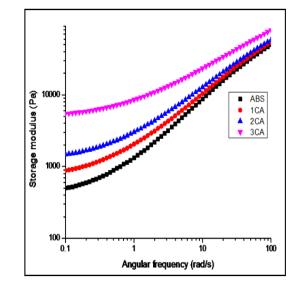


Emerging Trends in Mechanical Engineering Proceedings of the International Conference, ETME-2017, 27 & 28 December, 2017, Pg: -128-136

Sl. No.	Temperature ()	RPM	Time (min)
1.	230	60	20

#### **RHEOLOGY:**





Graph-1

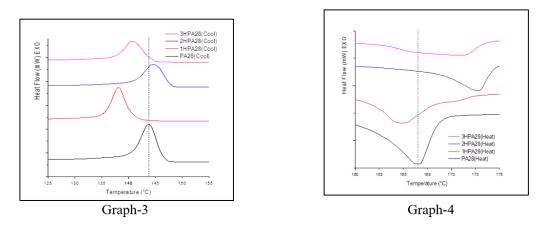
Graph-2





Emerging Trends in Mechanical Engineering Proceedings of the International Conference, ETME-2017, 27 & 28 December, 2017, Pg: -128-136

#### DSC (Differential scanning Calorimetry)



Graph 1 shows the reheological properties of the ABS with Hallosite and Graph 2 shows the reheological properties of the ABS with Cloisite. Graph3 shows the DSC properties of the ABS with Hallosite and Graph 4 shows the DSC properties of the ABS with Cloisite.

#### 6.0 Conclusion:

The polymer – ceramic composites (ABS with Halloysite, ABS with Cloisite).Were Succesfully prepared and the required specimens for the various tests were also prepared as per the ASTM standards. DMA (Dynamic Mechanial Analysis is carried on various specimens. With the DMA test the material charecterisation was carried out and the visco elastic properties of the composite material was evaluated. Using this technique the glass transition temperature was evaluated. Rheology tests on various configurations of the polymer specimens prepared are conducted as per standard. It was observed that the specimens with 3% Hallosite with Acrylonitrile-co-butadiene-co-styrene (ABS) showed excellent rehelogical properties over the other types of the specimens prepared. DSC (Differential scanning Calorimetry) for various combinations of specimens is carried.





Emerging Trends in Mechanical Engineering Proceedings of the International Conference, ETME-2017, 27 & 28 December, 2017, Pg: -128-136

#### 7.0 Acknowledgements:

Author wishes to acknowledge the management and principal for their constant support and encouragement to carry out this work.

#### **References:**

- 1. S. Bourbigot, M. Le Bras and J. Troitzsch, Introduction, inFlammability Handbook, ed. J. Troitzsch, HanserVerlagPub., Munich, 2003, pp. 3–7.
- 2. Fire Statistics, United Kingdom, Office of the Deputy Prime Minister, London, 2004.
- 3. Plastics Additives and Compounding, Nov/Dec 2005, p. 8.
- 4. M. Le Bras, D. Price and S. Bourbigot, Smoke Development and Suppression, in Flammability Handbook, ed. J. Troitzsch, HanserVerlag Pub., Munich, 2003, pp. 189–206.
- 5. S. Bourbigot and X. Flambard, Fire Mater. 2002, 26, 155.
- 6. Z. Al-Hassany, A. Genovese, R. A. Shanks, Fire-retardant and fire-barrier poly vinyl acetate composites for sealant application, EXPRESS Polymer Letters Vol.4, No.2 (2010) 79–93.
- 7. K.W. Thomson, P.D.D. Rodrigo, C. M. Preston, G.J. Griffin, Ceramifying Polymers for Advanced Fire Protection Coatings.



From:

Nasreen Fathima Assistant Professor Department of CSE ATMECE, Mysuru

To.

The Principal ATMECE, Mysuru

Through.

The HOD Department of CSE

Respected Sir,

#### Sub: Requisition to sponsor Registration Fee for "ICEECCOT-2017"

This is to bring to your notice that the paper entitled "Optimized Neighbor Discovery in IoT" authored by me, has been accepted and selected for Oral Presentation at International Conference On Electronics, Communication, Computer Technologies and Optimization Techniques (ICEECCOT-2017), scheduled to be conducted at GSSSIETW Mysuru on 15 and 16 December 2017 (details enclosed). Accepted papers will be published in IEEE Xplore digital library, Indexed by Scopus.

Further, I request you to sponsor my registration with an amount of Rs.5000/- (Rs. Five Thousand only) for conference and oblige.

Thanking You,

Yours Faithfully 🛃

Nasufatt 5/11/17

Submitted Forwarded for your kind i formalin and needful action

Proste

Depresident of Scales & Engg ATME Course of Enginetiano assisted CTCA 8

Approved topary Registration fee



#### nasreen fathima <nasreenfathima16@gmail.com>

#### **ICEECCOT-2017** notification for paper 198

2 messages

ICEECCOT-2017 <iceeccot2017@easychair.org> To: Nasreen Fathima <nasreenfathima16@gmail.com> Sun, Nov 12, 2017 at 7:50 PM

Nasreen Fathima: author's full name

Dear Author,

Congratulations!!!

Greetings from GSSSIETW, Mysuru!

We are pleased to inform you that your paper has been Accepted for Oral presentation at the International Conference ICEECCOT-2017 at GSSS Institute of Engineering and Technology for Women, Mysuru to be held on 15-16, December 2017.

The conference proceedings will be submitted to the IEEE Xplore® digital library.

You are requested to follow the instructions mentioned below.

1. Please read the reviews carefully, and revise your paper according to the review comments.

2. The Final Camera Ready Copy should be strictly according to IEEE format given by IEEE Use the A4 size template at

http://www.ieee.org/conferences events/conferences/publishing/templates.html

3. Mode of Payment:

The Author registration fee for each individual paper is Rs. 5,000 for IEEE members and Rs. 6,000 for Non-IEEE members. Registration Fee includes Author's Kit, Lunch and Tea.

Demand Draft Details:

DD in favour of "GSSSIETW, Mysuru"

NEFT Details: Beneficiary Name: GSSSIETW Bank Name : CANARA BANK Branch: SIDDARTHA NAGAR, MYSORE Account Number: 1080101019135 IFSC Code: CNRB 0001080

- 4. Submit the following documents on or before 14th November 2017 to iceeccot2017@gsss.edu.in
- Mention the "easy chair submission ID" in the Subject Line
- Registration Form (Please visit http://.iceeccot.geethashishu.in for Downloads)
- Scanned copy of the Proof of Payment.

• Signed and scanned copy of the copyright form. (http://www.ieee.org/publications\_standards/publications/rights/ copyrightmain.html)

Final (CRC)Camera Ready Paper (.doc only)

5. It is mandatory for the authors to present their paper at the conference, without presentation the accepted paper will not be published by the conference.

6. We are looking forward for your participation at the conference. If you are not the author presenting the paper, please forward this message to your co-author who will give the presentation.

Please feel free to contact the Organizing Chairs in case of any problems with CRC Submission and Formatting. IEEE Conference Approval Link: http://www.ieee.org/conferences\_events/conferences/conferencedetails/index.html? Conf\_ID=42836

Please feel free to contact us with any questions.

Yours Sincerely Dr. Parameshachari B D Organizing Chair, ICEECCOT 2017 Professor & Head, Dept. of TCE, GSSSIETW, Mysuru. hodte@gsss.edu.in Ph: +91-9886211981 Dr. Reshma Banu Organizing Chair, ICEECCOT 2017 Professor & Head, Dept. of ISE GSSSIETW, Mysuru. hodise@gsss.edu.in, Ph: +91-9742383080

#### ---- REVIEW 1 -----

PAPER: 198 TITLE: Optimized Neighbor Discovery in Internet of Things (IoT) AUTHORS: Nasreen Fathima, Dr. Reshma Banu and Dr.G.F. Ali Ahammed

Overall evaluation: 1 (accept)

----- Overall evaluation -----

1. Things identification can be done by one of these, By setting unique identifiers for things. There is not a unified standard for IoT things identifier at present.

This sentence does not make sense.

2. We analyze the implementation results obtained by running Classic IPv6 Neighbor discovery and optimized neighbor discovery as suggested by RFC 6775 in

No analysis or implementation details are given. 3. The experimental result discussed complies with the results obtained in No experimental results given

----- REVIEW 2 ------

**PAPER: 198** 

TITLE: Optimized Neighbor Discovery in Internet of Things (IoT) AUTHORS: Nasreen Fathima, Dr. Reshma Banu and Dr.G.F. Ali Ahammed

Overall evaluation: 1 (accept)

----- Overall evaluation -----

author need to give following clarification

1. the objective of this algorithm is not clear.

2. why this algorithms employed between router and host.

3. how this algorithm will find the destination or which algorithms is applied to find the destination.

----- REVIEW 3 ------

PAPER: 198 TITLE: Optimized Neighbor Discovery in Internet of Things (IoT) AUTHORS: Nasreen Fathima, Dr. Reshma Banu and Dr.G.F. Ali Ahammed

Overall evaluation: 1 (accept)

----- Overall evaluation ---

1. Justify the conclusion part

Literature survey is inadequate; can make few more additions.

----- REVIEW 4 -----

PAPER: 198 TITLE: Optimized Neighbor Discovery in Internet of Things (IoT) AUTHORS: Nasreen Fathima, Dr. Reshma Banu and Dr.G.F. Ali Ahammed

Overall evaluation: 2 (accept)

#good paper for Neighbor Discovery in Internet of Things.

# try to include little bit more related work.

-----PAPER: 198
TITLE: Optimized Neighbor Discovery in Internet of Things (IoT)
AUTHORS: Nasreen Fathima, Dr. Reshma Banu and Dr.G.F. Ali Ahammed

Overall evaluation: 2 (accept)

#### ----- Overall evaluation ------

Paper covers an efficient node discovery technique and compares with traditional ND method. Author can try with some more parameters to prove the algorithms efficiency.

Small mistakes in Section II which says seven layers. Can be resubmitted with the changes suggested.



Geetha Shishu Shikshana Sangha (R) GSSS Institute of Engineering & Technology for Women (Affiliated to VTU Belgaum, Approved by AICTE-New Delhi & Govt. of Karnataka) KRS Road, Metagalli, Mysuru- 570 016, Karnataka



Accredited Branches by NBA, New Delhi UG - ECE, CSE, ISE, TE, IT (Validity: 01.07.2017 - 30.06.2020)

#### **International Conference**

#### Electrical, Electronics, Communication, Computers and Optimization Techniques

#### (ICEECCOT-2017)

#### 15th -16th December 2017

Name (in Block Letters):	Nasreen Fathima
Qualification:	MTech
IEEE Membership No.:	94363227 (Dr. Reshma Banu)
Designation:	Assistant Professor
Department:	Computer Science and Engineering
Organization:	ATME College of Engineering, Mysuru
Address for correspondence:	#1885, II Phase, Il Stage , Rajivnagar, Mysuru-570019, Karnataka
DD/NEFT Details:	DD
DD No/NEFT Reference No. with date:	DD NO. 252492 Dated:13-11-2017
Amount in Rs:	Rs.5000/-
Paper Title:	Optimized Neighbor Discovery in Internet of Things (IoT)
Easychair Paper ID	198
Authors:	Nasreen Fathima, Dr. Reshma Banu, Dr. G. F. Ali Ahammed

#### **Declaration by Participant**

I declare that the details furnished are true to the best of my Knowledge. I agree to abide by the rules & regulations of the Program. If selected, I shall attend the course for the entire duration.

Name of the Corresponding Author:	Nasreen Fathima
Phone / Cell No. :	9986617206
E-Mail:	nasreenfathima16@gmail.com
Nasufatt	1401 13/m/17
Signature of the Author	Signature of the Principal College of Englineering
Date: 11/11/2017	i sin KM, Mysuru-Kanakapura-Bangalore Road Metlahalli, Mysuru-570028
w1 + 1	Mellaliani, my

Place: Mysuru

Jo, Head of the department Electronics & Communication Dept. AAME college of Engineering Mysum. from, Girish. M. Asst. professor. Bept. & RCE Lespected Sir, Subject: Request to refund the registration fee of 2000ks. towards FDP held from 17 th aly to 19th July 2017 at GSSSIETW. With respect to the above Subject, & Girish. M. participated in the 3 day FDP on "current Research trends in Dutonomous Robotics" held at GSSETETW, Mysnow & the above said dates. Therefore kindley request you to refund the amount that paid for the faculty development programme. Thanking you Approved

2017/17

Date: 20/9/17 place: Mysum

To, Principal Sis, For kind approval.

Dul

20/3/12

Yours faithfully (GIRISA.M)

Date: 14/11/17 Jo, place: Mysum. The princepal AGMECE, Mysure. Thom Ginshom Alest. professol Dept- q ROF DIMECE, Mymm Through toD Sir, despected Sir, Subject: Requested to refund the amount paid for Seminar at Belagave With respect to the above Subject, I was altended the one day Semenar on " ARM CORTER M3 Microcontrollers" held at Balekuncht Institute & technology at Belagave on 11/11/13. The details of TA, DA & Legislation fee is enclosed herewet for the amount of 1225/- L Thanking you, inconded to, fringepol sir for Kind approval Yours faithfully Approved to puy up" from Dept Ossourcing trug 603 (GIRISH.M) 1.117

Date: 27-01-2017

From, KARTHIK KUMAR M Asst.Professor Dept of Mechanical Engineering ATMECE, Mysuru

To, The Principal, ATMECE, Mysuru

Through: HOD – ME Respected sir,

### SUB: Request to reimburse of FDP expenditures

I thank college for giving me an opportunity to attend three Day Faculty Development Program held at NMAMIT Nitte. With reference to above subject, I hereby request you to reimburse the expenditures of FDP on Theoretical and Computational Mechanics which I've attended from 19-01-2017 to 21-01-2017. The expenditures are as listed below.

1.	Registration fee	-	1000/- Rs
2.	Bus to and fro fare	-	1130/- Rs
	Total		2130/- Rs

Thanking you,

Yours faithfully

(KARTHIK KUMAR M)

Folwalded to the principal with a sequest to sanction the expenditure & do needful.

G. Pattudas 07/01/2017

Approved

From, Rohith S Asst. Professor Dept of Mechanical Engineering ATMECE, Mysuru

To, The Principal, ATMECE, Mysuru

Through: HOD – ME

Respected sir,

### SUB: Request to reimburse of FDP expenditures

With reference to above subject, I hereby request you to reimburse the expenditures of FDP on Theoretical and Computational Mechanics which I've attended from 19-01-2019 to 21-01-2019. The expenditures are as listed below.

1.	Registration fees	-	1000/-
2.	Bus to and fro fare	-	1130/-
	Total	_	2130/-

Thanking you,

gin) ]

IFRONPED Hating the Smoor

Yours faithfully

(Rohith S)

Founded to the principal with a sequest to do needful. Ce. Pattertal 01/02/2017

Approved



From. Yashwanth N Asst. Professor Dept of Mechanical Engineering ATMECE, Mysuru

To, The Principal, ATMECE, Mysuru

Through: HOD - ME

Respected sir,

### SUB: Request for Reimbursement of FDP expenditures

With reference to above subject, I hereby request for the reimbursement of the expenditures of FDP on "Theoretical and Computational Mechanics" conducted by NMAMIT, Nitte during 19-01-2017 to 21-01-2017. The expenditures are as listed below.

1.	Registration fees	-	1000/-
2.	Bus to and fro fare	-	1130/-
	Total	-	2130/-

Thanking you,

Yours faithfully

(Yashwanth N)

Folloalded to the phincipal with a request to sanchios the scimbulsement amount & do needful. G. Rattitas 01/02/2017



Day 2: 20-01-2017 Session 5: 9.00 – 10.00 Speaker: Dr. T. Jayraju

Professor & Head, NIEIT, Mysuru Topics covered: Basics of Fracture Mechanics

In basics of fracture mechanics prof stressed on Linear Elastic Fracture Mechanics (LEFM), theory of failure fractures – Stress concentration, Griffth starin energy theory, Irwins plasticity correction, Stress intensity factor, Crack tip plasticity, Irwins modified stress intensity factor, modes of fracture.

**Tea Break**: 10.00 – 10.15

Session 6: 10.15 – 1.00 Speaker: Dr. Shashidhar K Kudari Professor, CVRCE Hyderabad Topics covered: Non linear fracture mechanics

In the previous session Dr. T. Jayraju explained concepts of fracture mechanics and also linear elastic fracture mechanics. In this session prof stressed on Non linear fracture mechanics (Elastic Plastic Fracture Mechanics) - concepts of material deformation and failure in the context of solid mechanics when cracks are present, Fracture toughness, J integral, Crack tip opening displacement, Crack tip opening angle, 90° intercept method and some of applications.

Lunch Break: 1.00 - 2.00

Session 7: 2.00 – 3.00 Speaker: Dr. Srinivas Pai P Professor and DOE, NMAMIT, Nitte

Topics covered: Applications of vibration signal analysis using ANN.

Prof discussed about his research work on vibration signal analysis using Artificial Neural Network (ANN). Neural network is a simulation and working of human brain. Properties – generalization, graceful degradation, adoption and learning parallelism. He also discussed some of case studies regarding neural networks.

**Tea Break:** 3.00 – 3.15

**Session 8**: 3.15 – 4.30

Speaker: Mr.Mahadeva Nagaral

Design Engineer, HAL, Bangalore

Topics covered: Design, selection of materials and testing in an aerospace domain.

Speaker was from industry he explained how the aircrafts will be design, which material should be select and finally how testing will be done in aerospace industry.

## FDP on Theoretical and Computional mechanics-2017 at

# NMAMIT, Nitte, Karkala- 574110

Day 1: 19-01-2017 8.30 - 9.15: Registration and Breakfast 9.15-10.00: Inauguration

Session 1: 10.00 - 11.30 Speaker: Keynote address by

Dr. H S N Murthy,

Topics covered: Basics of solid mechanics and its computational techniques- Problems in solid mechanics: analytical and semi-analytical, tools for engineer, tools for design, Physical problem formulation, Engineering problem formulation.

Solid mechanics

- Failure of a component or structure- Material failure, excessive deformation,
- Strength of material approach- Idealization of structures, Large number of 0
- assumptions based on observation. • Elastic Approach- Less simplified model, Governing Equations, Variables.
- Analytical modeling.
- Numerical modeling.

Inverse and semi inverse methods- Solution in radial coordinates: Michell. Case study: Modelling of an Engineering Problem.

Tea break :11.30-11.45

Session 2: 11.45 – 1.15

Speaker: Dr. H K Rangavittal,

Professor, BMSCE, Bangalore

Prof explained the application of computers in design process, need for computational Topics covered: Basics of FEM & BEM. method, finite element approach, finite element method – applications and limitations, direct

approach for stiffness matrix formulation of bar element and Galerkin's method. Also explained introduction to Boundary Element Method (BEM) and its application.

Lunch break: 1.15-2.00

### Session 3: 2.00- 3.15

Speaker: Dr. S N Shridhara,

Professor, KSSEM, Bangalore

### **Topics covered**:

Basic and application of CFD.

In session 3 prof explained about basic of Computational Fluid Dynamics (CFD).

Complications of CFD - Simultaneous flow of heat, mass transfer, phase change,

• chemaical reaction, mechanical movements.

Steps involved in CFD – Physics  $\rightarrow$  Modeling  $\rightarrow$  Numerics  $\rightarrow$  Visualization.

- Uses of CFD- Analysis & Design, Knowledge & exploration. ٠
- He also discussed about main 3 law of conservation i.e., Mass conservation, Momentum

equation and Energy Conservation. Difference between Space discritization – Grid and Structured, unstructured.

Equation discritization – Finite difference method, Finite element method.

### CFD Applications

6

- Vehicle aerodynamics
  - o Parameters -
    - Co-efficient of drag on vehicle.
    - Location of aerodynamics centres. .
    - Aerodynamics moments about 3 major axis.
    - Vehicle reaction at different cross winds.

In session 4 prof explained about Applications of CFD with some of case studies on aerodynamics.

### Day 3: 21-01-2017 Session 9: 9.00 – 10.00 Speaker: Dr. Govinda Raju

Professor and Head, BMSITM, Bangalore

Topics covered: Fatigue fracture

Professor discussed about his research work on fatigue behavior. He discussed about material composition, casting and heat treatment, tensile push pull equipment, load crack opening displacement, fracture toughness test, fracture crack growth test and micromechanism of fracture.

Session 10: 10.00 – 4.00

Speaker: Mr. Shashidhar and Mr Aravind

Cyient LTD., Bangalore

Topics covered: Hands on (Ansys work bench 17.1) These people explained how to use Ansys work bench 17.1 with some problems regarding static, dynamic, thermal and non linear analysis.

4.00 - 4.30 : Valedictory session

### Date: 01/01/2018

Puneeth K, Shashank P & Srivathsa H U Dept. of Civil Engineering ATMECE

### То

From

The Principal ATMECE, Mysuru

Through

Head of the Department Dept. of Civil Engineering ATMECE, Mysuru

### Respected Sir,

Sub: Seeking permission to participate for 4 days FDP on "Software Application Laboratory"

As per the subject cited above, we are planning to participate for 4 days FDP on "Software Application Laboratory" from 8<sup>th</sup> to 11<sup>th</sup> January 2018 organized by Dept. of Civil Engineering, Dayananda Sagar Academy for Technology & Management, Bengaluru. This FDP is related to our upcoming 6<sup>th</sup> semester "Software Application Laboratory (15CVL67)", which is useful in knowing the subject and teach effectively for our students. Hence we kindly request you to grant permission in this regard and oblige.

Thank you,

folwarded to principal sit

ours faithfully



# ATME COLLEGE OF ENGINEERING

# DEPARTMENT OF CIVIL ENGINEERING



**Report on** 

# Four Days Faculty Development Program on "Software

**Application Laboratory FDP SAL-2018"** 

Jan 8<sup>th</sup> - 11<sup>th</sup> 2018

at "Dayananda Sagar Academy of Technology & Management"

Attended by

Srivathsa H U (Asst. Prof, Dept. of Civil Engineering) ·Shashank P (Asst. Prof, Dept. of Civil Engineering) Puneeth K (Asst. Prof, Dept. of Civil Engineering)

### Day 1:

Session 1: During the Morning Session Mr. Amarnatha S N, Managing Director, FE Designs gave a brief introduction on CYPE Software.

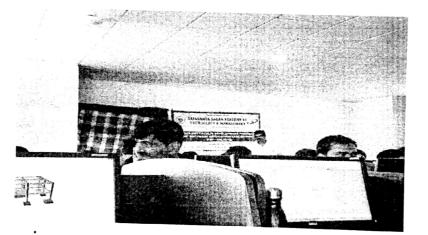
Session 2: In this session, all the faculties got exposed to 3D-analysis of Multi-Storeyed frame structures by using CYPE Software.

Session 3: In this session, hands on one-one training on Analysis of Plane trusses, Continuous Beams Portal Frames and interaction with resource person.

Day 2:

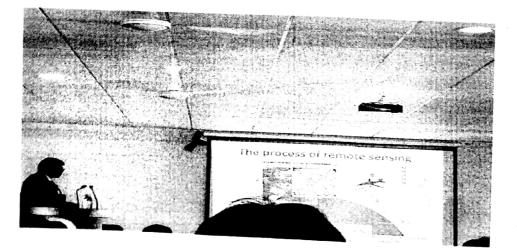
Session 1: Hands on one-one training on Analysis of Multi-Storeyed frame structures using CYPE Software.

Session 2: Hands on one-one training on Design and Layout of Multi-Storeyed frame structural elements using CYPE Software.



### Day 3:

Session 1: During this session Dr. H.B. Balakrishna, Professor, Dept. of Civil Engineering, Bangalore Institute of Technology, Bangalore gave a brief introduction on RS, GIS & its applications.







Dayananda Sagar Institutions •

二、神石語

# DAYANANDA SAGAR ACADEMY OF TECHNOLOGY & MANAGEMENT

Affiliated to VTU, Belagavi & Approved by AICTE, New Delhi

Opp. to Art of Living, Kanakapura Main Road, Udayapura, Bangalore- 560 082

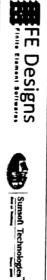
# FOUR DAY FACULTY DEVELOPMENT PROGRAM ON SOFTWARE APPLICATION LABORATORY FDP - SAL 2018

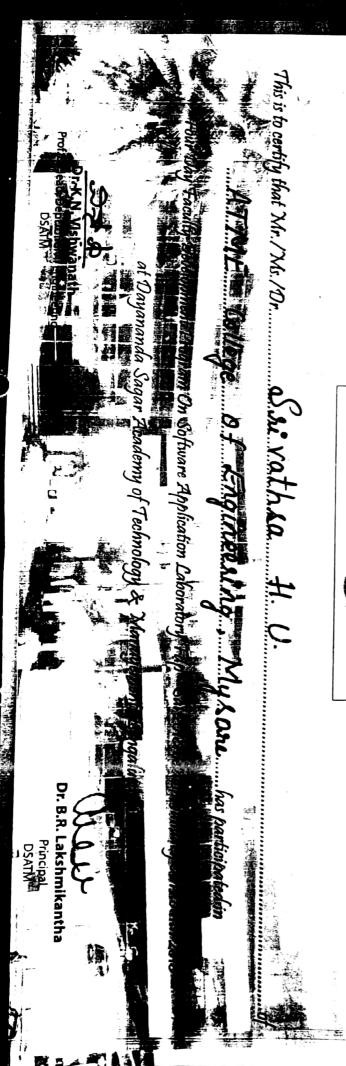
January 8<sup>th</sup> - 11<sup>th</sup>, 2018



Organized by

Department of Civil Engineering In Association with





Date: 6/02/2018

From, Srivathsa H U, Shashank P & Puneeth K Assistant Professor, Civil Engineering Dept. ATMECE, Mysuru

To, The Principal ATMECE, Mysuru

Through, Head of the Dept. Civil Engineering Dept. ATMECE, Mysuru

Respected Sir,

Sub: Regarding travelling and accommodation expenses of FDP

As per the subject cited above, we have attended four days Faculty Development Program on "SAL-2018" from 8<sup>th</sup> to 11<sup>th</sup> Jan 2018, held at Dayananda Sagar Academy of Technology and Management college, Bengaluru. The travelling and accommodation expense details are given below and bills are enclosed. So we kindly request you to refund the same and oblige.

Travelling expenses:- Bus fare: [125 + 118]\*3 = Rs 729/-Accommodation expenses: 1000\*3 = Rs 3000/-

Total Amount

=Rs 3729/-

Enclosed: Bus tickets & Accommodation receipt

Thank you,

1000-

Yours sincerely

	CV/ ATTME	
	NANI	
, (Af	filiate Hostel of DSATM) nakapura Road, Bangalore -	560 082.
	RECEIPT	Date 8 11118
No. 320 Received with thanks from	OL Multo	1 · · · ·
	•	a sum of
Rupees Overthon towards Boendin	would fill	for FDP.
by Cash / Cheque No	Y	Dt
Re 1000/-		0326
(Cheques subject to Realisation)		- Signature
•		•
	CU/ATTLE !	heyborne
JA	NANI	0
	iate Hostel of DSATM) kapura Road, Bangalore - 56	50.082
819	RECEIPT	Date 8/1/17
Received with thanks from	Shashauk	Ρ.
- 10	1	a sum of
Rupees Oue The towards POaldie	l. Coderne	Con FDP.
by Cash / Cheque No.		0Dt
Rs. 1000 5-		SO_
(Cheques subject to Realisation)		Signature
		ć\$1
	CV/AT	THE Mysore
JA	NANI	U
(Affiliat Udayapura, Kanaka	e Hostel of DSATM) pura Road, Bangalore - 560	080
No. 318		Date 8/1/17
Received with thanks from	Purceff.	
		a sum of
Rupees. Onethouse towards. Boarduy	Loderne	for FDP.
by Cash / Cheque No.	1 0	0
Rs. Loook		0
(Cheques subject to Realisation)		Signature

ಕ . ರಾ . ರ . ಸಾ . ನಿಗಮ ಮೈಸೂರು ಬಸ್ ಸಿಲ್ಟಾ ಇ No: 408829 08/01/18 06:18:16 रूर्ययाकः ०वा a) MYSORE MCTC PROMOTIONAL FARE AF:01 ವಯಸ್ಥರು :1 \* 125.00 = ರೂ.125.00 .125.00 :00 h

005812 ಗಡೆ53636 0000000 48138022F ವರ್ಗಾಯಸವಂತಿಕ್ಷ

005812 R053636 0000000 48138022F

 さ、ひつ、ひ、でつ、れつ、れつは

 ಮೈಸೂರು ಐಸ್ ಸಿಲ್ಡಾ ಣ

 No:408831
 08/01/18
 06:18:20

 EXPRESS
 VEHICLE NO

 ಮೈಸೂರು -- ನ್ಯಾಥೆಡ್ನೂ ೦ಡ್ ಡಿ

 MYSORE
 -- MCIC

 PROMOTIONAL FARE

 AF:01

 ವರುಸ್ಥರು 1 \* 125.00

 ಪರಿಂತ್ :00.125.00

 005812 A053636 0000000

 48138022F

 ವರಾಕಾಯಸ್ಥನಂತ್ರಿ