#### DEPARTMENT OF PHYSICS

Date: April 19, 2016

From,

Head of the Department

Department of Physics

Alva's Institute of Engineering and Technology

Mijar

To,

The Principal

Alva's Institute of Engineering and Technology

Shobavana Campus

Mijar

Dear Sir,

Subject: Request for permission to conduct a Workshop on Research Methodology in Engineering Sciences

We have decided to conduct a Workshop on Research Methodology in Engineering Sciences during our departmental meeting. Since we have many Engineering Sciences faculty in our neighbouring institutes of Dakshina Kannada region, this workshop will greatly help both registered and unregistered PhD candidates of engineering sciences. We would like to conduct this work shop during August 26-27, 2016

I request you to approve this workshop.

Yours sincerely

H.O.D. HOD

Dept. Of Physics
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

Date: April 26, 2016

To,

Dr. Richard Pinto Director-CENT Sahyadri College of Engineering and Management Adyar, Mangalore

Dear Dr. Richard Pinto,

Subject: Invitation for guest talks on Research Methodology in Engineering Sciences

We are organising a Workshop on Research Methodology in Engineering Sciences during August 26-27. This workshop will greatly help both registered and unregistered PhD candidates of engineering sciences. As a Researcher who has contributed significantly R & D, the organizing committee feels that we will be greatly honoured with your participation in the workshop. I would therefore like to take this opportunity to invite you to participate in the workshop and deliver an invited lecture. We will be happy to provide local hospitality during the workshop.

We are looking forward to hearing from you.

Thanking You
With warm regards

Alva's Institute of Engg. & Technology, Mijar. MOODBIDRI - 574 225, D.K

Date: April 26, 2016

To,

Dr. Jayarama A
Associate Professor
Department of Physics
Sahyadri College of Engineering and Management
Adyar, Mangalore

Dear Dr. Jayarama A,

Subject: Invitation for guest talks on Research Methodology in Engineering Sciences

We are organising a Workshop on Research Methodology in Engineering Sciences during August 26-27. This workshop will greatly help both registered and unregistered PhD candidates of engineering sciences. As a Researcher who has contributed significantly R & D, the organizing committee feels that we will be greatly honored with your participation in the workshop. I would therefore like to take this opportunity to invite you to participate in the workshop and deliver an invited lecture. We will be happy to provide local hospitality during the workshop.

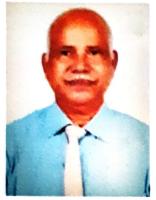
We are looking forward to hearing from you.

Thanking You With warm regards

PRINCIPAL

Alvo's Institute of Engg. & Technology, faijot, MOCOBIDRI - 574 225, D.K.

## **About Resource persons**



Dr. Richard Pinto has over 50 years research and development experience in the area of nanomaterials, thin films and device fabrication earlier at TIFR and later at IITB. As a key member of the faculty team, he was responsible for building IITB-Nano Fabrication facility in the years 2006-2012. He has more than 300 journal publications, one patent and 2 patent applications. Prof. Pinto has initiated R & D

effort on PEM fuel cells at SCEM in collaboration with IIT Bombay and Tata Institute of Fundamental Research, Mumbai. As a member of this R & D team, he has worked extensively during last 3 years on enhancement of power output of PEM fuel cells using both methanol and hydrogen as fuels. He has 1 patent application and 280 publications in the area of PEM/hydrogen fuel cells along. Presently he is working as Director-CENT at Sahyadri College of Engineering and Management, Mangalore.



Dr. Jayarama A is a faculty of Physics at Sahyadri College of Engineering and Management, Mangalore. He has more than 16 years of hands on experience in engineering and fabricating metallic/magnetic thin films by sputtering and spin coating. These were then characterized by temperature

dependent four probe resistivity measurement, XRD, EDAX, SEM, TEM, FTIR, FT-Raman, TGA/DTA, DSC and AFM. He has hands-on-training in lithography and device fabrication facility, especially the MEMS facility at IITB-NF. He has organised 4 International conferences as convener. He was the editor for Sahyadri International Journal of Research during 2016-17. He has received an award for research publications from Vision group of Science and Technology. His research areas includes Methanol Fuel cells, Bio sensors such as ammonia, H<sub>2</sub>S, ethanol sensors, optical limiting materials and piezoelectric MEMS cantilever vibration sensors. He has over 68 publications in SCI peer reviewed journals and has filed 1 patent application.

#### REGISTRATION FORM

#### A Workshop on

# Research Methodology in Engineering Sciences (RMES-2016)

August 26-27, 2016

Designation:	<u> </u>
Organization:	
Address:	
Email:	
Phone:	
Mobile:	
Fax:	
Draft/Cheque No.:	
Dated:	
Drawn on (Bank):	

Signature of the Head of the Institution
Applicant

#### **Chief Patron**

Sri Mohan Alva

Chairman-Alva's Education Foundation

#### **National Advisory Committee**

Dr. Nitin S Kale, Nanosniff Technologies

Prof. Lazar Mathew, Advisor, PSG IAS

Prof. P.R. Apte, IIT Bombay

Prof. V. Ramgopal Rao, IIT Bombay

Prof. Richard Pinto, IIT Bombay

Prof. Manu S Multani, TIFR (retd.)

Prof. V R Palkar, IIT Bombay

Prof. Siddhartha Duttagupta IIT Bombay

## **Organizing Committee**

### **Organizing Chairman**

Dr. Peter Fernandes

Principal, AIET, Moodabidri

#### Coordinator

Dr. Ramaprasad A.T, Dept. of Phy

#### Members

Prof. Rajesh Kumar, Dept. of Phy

Mrs. Ashwini A.R, Dept. of AE

Dr. Basavaraju, Dept. of Che

Prof. Harish Kundar, Dept. of CSE

Dr. Ramaprasad, A.T. Dept. of Phy

### A Workshop

on

# Research Methodology in Engineering Sciences (RMES-2016)

August 26-27, 2016

# Organized by:

Department of Physics
Alva's Institute of Engineering and Technology



Alva's Institute of Engineering and Technology Mijar, Shobhavana Campus, Moodabidri – 574225

Phone & Fax: 08258-262695, Email: prinicpal08@gmail.com

#### About AIET

Alva's Institute of Engineering and Technology, Moodabidri is a dream child of the renowned Alva's Education Foundation and was established in the year 2007. The college is affiliated to VTU Belgaum, approved by AICTE, is one of the upcoming institution under the leadership of it's Chairman Dr. Mohan Alva. The institute has MoU's with many industries for the establishment of R &D competence for automation technologies and with premier institutes. The institute has world class infrastructure and state-of-art Lab facilities and it offers many UG & PG programs. The programs are backed by well equipped, state-of-the-art laboratories and enthusiastic as well as experienced staff.

#### **UG** Courses

Civil Engineering
Computer Science & Engineering
Information Science & Engineering
Electronics & communication Engineering
Mechanical Engineering

#### **PG Programs**

M.Tech in Mechanical Engg.
M.Tech in VLSI & Embedded design
M.Tech in Computer Science & Engg.
Master of Business Administration(MBA)

#### Scope of RMES-2016

This research methodology workshop is expected to help all the PhD research scholars specifically in engineering sciences of Alva's institutes and neighbouring institutions of south canara region. The R & D centre at AIET with all facilities supported by Dr. Mohan Alva, Chairman, AIET and President of Alva's Education Foundation will help many PhD scholars and PG students of engineering sciences to enhance their research knowledge towards the development of devices which have societal importance.

AIET has 2000 sq.ft research laboratory and will be the first institution to extend its research facilities to motivated research students in the undivided Dakshina Kannada district of Karnataka State. AIET also has plan to setup new research centre guidance of Prof. Richard Pinto, Professor in Electrical Engineering, Indian Institute of Technology - Bombay. The construction works of R & D CENTER, with an area of 4,000 square feet, has begun and has received funding from both AEF and different government funding agencies. The centre will have necessary equipments and infrastructure for advanced research in the near future.

This Research methodology workshop aims to easier to solve research problems in engineering sciences. This includes review of both fundamentals and advances in Science and Technology. The scope also includes a series of lectures on wide ranging topics which have tremendous applications. As part of this workshop an extensive simulation session will form the seed for simulation activity and simulation lab at AIET. The workshop will end with a brain-storming session followed by action plans for the implementation of industry related R & D research projects.

#### Resource Persons

Dr. Richard Pinto, SCEM Mangalore
Dr. Sujaya, AJIET, Mangalore
Prof. Rajesh Rai, AJIET, Mangalore
Dr. Jayarama A, SCEM Mangalore
Prof. Manu S Multani, TIFR (retd.)
Dr. Shriganesh Prabhu, TIFR Mumbai
Dr. Siddhartha P Duttagupta, IIT Bombay
Prof. Achanta Venu Gopal, TIFR, Mumbai

#### Who can participate?

Faculty from Academic Institutions
Research Scholars and PG Students
Engineers/Scientists from Industry and R & D centers

#### **IMPORTANT DATES**

Last Date for Registration 15 Aug; 2016 Intimation of Acceptance 20 Aug 2016

#### **Registration Fee**

Research Scholars/PG Students: Rs. 200/-Faculty of Academic Institutions: Rs 550/-Researchers from Industries: Rs. 1000/-

#### Accommodation

Accommodation will be provided based on the prior request.

Duly filled Application should be sent to

Dr. Ramaprasad A.T , (Ph: +919449200658) RMES-2016 AIET, Mijar, Shobhavana Campus, Moodabidri D.K District, Karnataka State-574225



Date: August 16, 2016

# Circular

It is hereby informed all the Faculty members and research scholars to that there will be Workshop on Research Methodology in Engineering Sciences during August 26-27, 2016.

All are requested to attend and make use of this workshop

HOD Dept. Of Physics

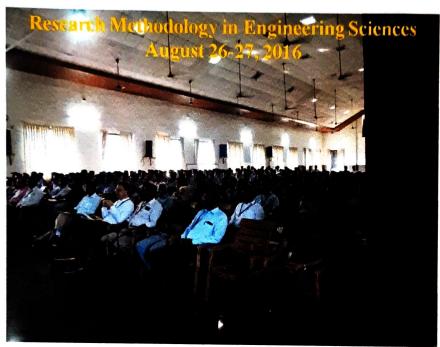
Alva's !nstitute of Engg. & Technology Mijar, MOODBIDRI - 574 225

# Report of Workshop on Research Methodology in Engineering Sciences

Department of Physics of Alva's Institute of Engineering and Technology has organized a Workshop on Research Methodology in Engineering Sciences RMES-2016 during August 26-27, 2016. Dr. Ramaprasad A.T. was the coordinator of the workshop and Prof. Rajesh Kumar was the subcoordinator of the workshop. 38 participants from the various disciplines of engineering sciences were the present during this workshop and many of the participants were research scholars. All the sessions were systematically arranged keeping in mind the need of the research scholars. The sessions were as follows:

Dr. Ramaprasad, Head physics dept. welcomed the participants and gave an introductory speech as well as introduced Dr. Richard Pinto was the resource person of day I: Research culture and how to write journal papers. Dr. Ramaprasad A.T, Department of Physics of Alva's Institute of Engineering and Technology felicitated Dr. Pinto with a buckeye.

Day I: Application of softwares in Science and Engineering Research taken by Dr. Richard Pinto. Sir began his session with the meaning of variable. According to him, when information is measured then this measurement is called as the variable. He also talked about the types of variables — Dichotomous variable and Ordinal Variable. He discussed various data analysis techniques which are quantitative analysis and qualitative analysis. He explained that qualitative analysis is based on content analysis, meta analysis and SWOT/C analysis i.e. strength, weakness, opportunity, treats & challenge. He also discussed the analysis techniques used in association/ relationship. In this he talked about standard product moment correlation, point- biserial correlation and spearman's correlation. He explained very adequately how to do data analysis using software.



Photograph of participants during Research Methodology workshop

Day II: Sampling Methods and Techniques by Dr. Jayarama A. Sir discussed the meaning of sampling which means a process used in statistical analysis in which a predetermined number of observations are taken from a larger population. He pointed out the various sampling methods used in probability sampling – simple random sampling, stratified sampling, cluster sampling, systematic sampling and multistage sampling. He also highlighted non-probability sampling techniques – quota sampling, convenience sampling, purposive sampling, self-selection sampling and snowball sampling.

38 participants from the various disciplines of engineering sciences benefitted due tis workshop

HOD

H. O. D.

Dept. Of Physics

Alva's !nstitute of Engg. & Technology

Mijar, MOODBIDRI - 574 225

# List of Participants present in RMES-2016

Sl. No	Name	Address	
1	Akshay Bhat	Department of PG Physics, Alva's College Moodbidri - 574227, India	Au
2	Amritha Y R	Department of PG Physics, Alva's College Moodbidri - 574227, India	Museuse
3	Anusha	Department of Physics, DVS college of Arts and Science, Shivamogga-577202, India	Analysis
4	Aparna Mallya M	Department of PG Physics, Alva's College Moodbidri - 574227, India	affam ml
5	BARGHAVA H PATIL	Department of PG Physics, Alva's College Moodbidri - 574227, India	Bulga
6	BHAVANA N R	Department of PG Physics, Alva's College Moodbidri - 574227, India —	Mre.
7	CHAITHRA	Department of PG Physics, Alva's College Moodbidri - 574227, India	can tra
8	CHETHANA	Department of PG Physics, Alva's College Moodbidri - 574227, India	cretain
9	Chidananda	Department of PG Physics, Alva's College Moodbidri - 574227, India	chdene
10	Deeksha Prabhu	Department of PG Physics, Alva's College Moodbidri - 574227, India –	Pra Bhales
11	Sarvesh	Ph.D. Research Scholar Department of Physics MITE Moodbidri	Sagvesh
12	DIVYA S D	Department of PG Physics, Alva's College Moodbidri - 574227, India	Divya. S.D.

13	Gopal Krishna U B	Department of Mechanical Engineering Alva's Institute of Engineering & Technology Shobhavana Campus, Mijar Moodbidri Dakshina Kannada- 574225 Karnataka M: +91-9739765392	Sofol V.B.
14	Gracian Rayan Correa	Department of PG Physics, Alva's College Moodbidri - 574227, India	Con Payar
15	Jithesh J K	Department of PG Physics, Alva's College Moodbidri - 574227, India	J. K. Liter
16	Kavyashree V	Department of PG Physics, Alva's College Moodbidri - 574227, India	Maryasher
17	Maitri Ravindra Hegde	Department of PG Physics, Alva's College Moodbidri - 574227, India	tielige
18	Mangesh Bhat P	Department of PG Physics, Alva's College Moodbidri - 574227, India	Dat. D
19	Mr. Gajanan M Naik	Dept. of Mechanical Engg. MITE-Moodbidri, Mangaluru	Gajun
20	Mr.K R Sudharshan	K R Sudharshan Department of PG Studies in Physics, Alva's College, Moodbidri-574227, India	K.R.Suls
21	Namratha Jain S	Department of PG Physics, Alva's College Moodbidri - 574227, India	Naplant

22	Gananath Shetty	Research Scholar St. Joseph Engineering College Mangalore	Cannoth
23	Pooja	Department of PG Physics, Alva's College Moodbidri - 574227, India	pools
24	Pretty Mohan U	Department of PG Physics, Alva's College Moodbidri - 574227, India	Motor V.
25	Radhika Rajesh Moger	Department of Physics, Alva's College Moodbidri - 574227, India	Padhiban noge
26	Sadhvitha	Department of PG Physics, Alva's College Moodbidri - 574227, India	Sadhuit
27	Sahana S A	Department of PG Physics, Alva's College Moodbidri - 574227, India	Sahara.
28	Samanvitha K V	Department of PG Physics, Alva's College Moodbidri - 574227, India	Theatr. H. K.V.
29	Shruthi K B	Department of PG Physics, Alva's College Moodbidri - 574227, India	Det. K. B.
30	Shwetha S	Department of PG Physics, Alva's College Moodbidri - 574227, India	Shortha. S.
31	Sowmya Achary	Department of PG Physics, Alva's College Moodbidri - 574227, India	Soulyandoha
32	Sowmyashree B	Department of PG Physics, Alva's College Moodbidri - 574227, India	Sargher R.
33	Dayanand G.K	Research Scholar Department of ECE CEC-Mangalore	G la Dyay

34	Sunil Kumar N	Department of PG Physics, Alva's College Moodbidri - 574227, India	Suil An. N
35	Swathi H	Department of PG Physics, Alva's College Moodbidri - 574227, India	Sethi. H.
36	Vijayashri S K	Department of PG Physics, Alva's College Moodbidri - 574227, India	Vija d. CK.
37	Vinutha P R	Vinutha P R Dept. of Physics, Bearys Institute of Technology, Innoli, Mangalore	William 1
38	Vishnuprasad K	Department of PG Physics, Alva's College Moodbidri - 574227, India	Mety A. K.

H. O. D.

Dept. Of Physics
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225



# Alva's Institute of Engineering and Technolog

Shobhavana Campus MIJAR, Moodbidri, Mangalore, Kamataka 574225

# Certificate of Participation

This is to certify that	
***************************************	has participated in the
Workshop on Research Methodolog	y in Engineering Sciences RMES-201
during August 26-27, 2016 held at A	IET Moodbidri.
Principal	Coordinator

PRINCIPAL

Alva's Institute of Engg. & Technology, Mijer, MICOLISION - 574 225, D.K