



**Alva's Institute of Engineering and Technology**

Shobhavana Campus, Mijar-574 225, Moodbidri, D.K.

**DEPARTMENT OF PHYSICS**

Date: August 20, 2019

From,

Head of the Department

Department of Physics

Alva's Institute of Engineering and Technology

Mijar, Moodbidri

To,

The Principal

Alva's Institute of Engineering and Technology

Shobhavana Campus

Mijar, Moodbidri

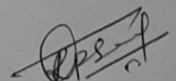
Dear Sir,

Subject: Request for permission to conduct research methodology workshop

We have decided to conduct Research methodology workshop in our recent departmental meeting. The workshop includes 1) methods to search literature, 2) quality of journals: impact factor, citation etc and 3) methods to write research articles. We would like to conduct this workshop November 21-22, 2019

I request to give permission for the same.

Yours sincerely

  
HOD

H. O. D.

Dept. Of Physics

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



**Alva's Institute of Engineering and Technology**

Shobhavana Campus, Mijar-574 225, Moodbidri, D.K.

---

Date: August 29, 2019

To,

Dr. Shriganesh Prabhu  
Associate Professor  
FOTON Group, TIFR Mumbai, Dr.HomiBhabha Road,  
Navy Nagar, Colaba, Mumbai,  
Maharashtra 400005

Dear Dr. Shriganesh Prabhu,

Subject: Invitation for guest talks on Research Methodology

We are organising a Workshop on Research Methodology during November 21-22, 2019. The workshop includes 1) methods to search literature, 2) quality of journals: impact factor, citation etc and 3) methods to write research articles.

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

Principal

PRINCIPAL

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



**Alva's Institute of Engineering and Technology**  
Shobhavana Campus, Mijar-574 225, Moodbidri, D.K.

Date: August 29, 2019

To,

Dr. Prakash R Apte  
Distinguished Professor  
Dept. of Electrical Engineering  
College of Engineering Pune  
Wellesley Rd, Shivajinagar,  
Pune, Maharashtra 411005

Dear Dr. Prakash R Apte,

Subject: Invitation for guest talks on Research Methodology

We are organising a Workshop on Research Methodology during November 21-22, 2019. The workshop includes 1) methods to search literature, 2) quality of journals: impact factor, citation etc and 3) methods to write research articles.

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

Principal  
PRINCIPAL

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



## About Resource persons



Dr. Shriganesh Prabhu has made vital contributions in the domain of Tera-Hertz (THz) Spectroscopy, III-V, IIVI bulk semiconductors, devices, Non-equilibrium carrier dynamics in Mesoscopic systems, low dimensional structures, Picosecond and Femtosecond Time Resolved measurements. During the last three years Dr. Prabhu has been associated with the AIET team in the development of novel PEM fuel cells, first direct methanol fuel cells and followed by hydrogen fuel cells. His contribution in the development of high performance hydrogen fuel cells with UV modified high proton conductivity nafion became the pioneering work at TIFR. TIFR has been instrumental in initiating new advances in variety of domains during the last 70 years and arguably, the development of UV modified high proton conductivity nafion is one of them. At present he is working as Associate Professor at TIFR Mumbai.



Dr. Prakash R Apte obtained his B.E. in Electrical Engineering from Indore University in 1968, and M.Tech. in Electrical Engineering from IIT Kanpur in 1970. He then joined as research staff and obtained his Ph.D. from the Tata Institute of Fundamental Research in Mumbai. He had been instrumental in developing India's first TTL technology. He spent couple of years (1977-78) in the IC lab, at Stanford University, USA. His recent research interests have been high temperature superconductors, Micro-Electro-Mechanical Systems (MEMS) in silicon and Taguchi/TRIZ methods. He has authored more than 50 research papers in international journals. Since 1992, his main interest shifted to Taguchi methods for process and quality improvement and later in 1997 he got interested in TRIZ - Inventive Problem Solving. He has been conducting 1-day to 5-day courses in these two methods for engineers from Indian industries and research scholars from universities. Since October 2001, he has been a Professor in the Quality and Reliability Group, Department of Electrical Engineering, IIT Bombay. At present he is working as a distinguished professor at College of Engineering Pune.

A Workshop on  
**Research Methodology (RM-2019)**

*November 21-22, 2019*

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

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 Foundatio

**National Advisory Committee**

Prof. V. Ramgopal Rao, *IIT Delhi*

Prof. Richard Pinto, AIET, Moodbidri

Prof. Lazar Mathew, Advisor, PSG IAS

Prof. P.R. Apte, COE, Pune

Prof. V R Palkar, Ex.IIT Bombay

Prof. Siddhartha Duttagupta IIT Bombay

Dr. Nitin S Kale, Nanosniff Technologies

Prof. Manu S Multani, TIFR (retd.)

**Organizing Committee**

**Organizing Chairman**

**Dr. Peter Fernandes**

Principal, AIET, Moodabidri

**Coordinator**

Dr. Ramaprasad A.T, Dept. of Phy

**Members**

Dr. Ramaprasad A.T, Dept. of Phy

Prof. Rajesh Kumar, Dept. of Phy

Mrs. Ashwini A.R, Dept. of AE

Dr. Basavaraju, Dept. of Che

Prof. Harish Kunder, Dept. of CSE

A Workshop  
on

**Research Methodology  
(RM-2019)**

**November 21-22, 2019**

**Organized by:**

Department of Physics

**Alva's Institute of Engineering and Technology**



**ALVA'S**  
Education Foundation

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

**574225**

Phone & Fax: 08258-262695, Email:  
prinicipal08@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

Master of Business Administration(MBA)

## Scope of Workshop

This workshop is expected to be the first of the action plans in the creation of R & D center at AIET. Creation of R & D center at AIET is a noble and a very ambitious goal fully supported by Dr. Mohan Alva, Chairman, AIET and President of Alva's Education Foundation, and also with active participation of Principal & Faculty of AIET.

AIET will be the first institution to set up such a centre in the undivided Dakshina Kannada district of Karnataka State. The new research centre will be established under the 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 22,000 square feet, has begun and it is expected to be completed by January 2019. The centre will have necessary equipments and infrastructure for advanced research.

This Research methodology workshop aims to review both fundamentals and advances in Science and Technology. The scope includes a series of lectures on wide ranging topics such as physics of Nano-materials, Nano-material Synthesis and Characterization, Focused Ion Beams for Nano-Science & Technology, Nano-Structures for Energy Applications, Nano-structures for THz applications, Thin Films for R&D, Nano-Bio Physics, Fundamentals & Applications of MEMS & NEMS & Taguchi Optimization Techniques. 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 creation of R & D CENTER at AIET.

## Resource Persons

Prof. S S Prabhu, TIFR, Mumbai  
Prof. Lazar Mathew , Advisor, PSG IAS  
Prof. P.R. Apte, COE, Pune  
Prof. V R Palkar , Ex. IITB & TIFR  
Prof. Siddhartha Duttgupta IIT Bombay  
Dr. Nitin S Kale, Nanosniff Technologies  
Dr. A.V Gopal, TIFR  
Dr. Shriganesh Prabhu, 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 NOV; 2019  
Intimation of Acceptance 20; NOV 2019

## Registration Fee

Research Scholars/PG Students :Rs. 200/-  
Faculty of Academic Institutions : Rs 500/-  
Researchers from Industries: Rs. 1000/-

## Accommodation

Accommodation will be provided based on the prior request.

*Duly filled Application should be sent to*

Dr. Ramaprasad, (Ph: +919449200658)  
RM-2019  
AIET, Mijar, Shobhavana Campus, Moodabidri  
D.K District, Karnataka State-574225





**Alva's Institute of Engineering and Technology**  
Shobhavana Campus, Mijar-574 225, Moodbidri, D.K.


**DEPARTMENT OF PHYSICS**

Date: November 14, 2019

**Circular**

It is hereby informed all the Faculty members and research scholars to that there will be a Workshop on Research during November 21-22, 2019.

All are requested to attend and make use of this workshop

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

## **Report of Workshop on Research Methodology**

Department of Physics of Alva's Institute of Engineering and Technology has organized an A Workshop on Research Methodology (RM-2019) in Science and Engineering during November 21-22, 2019. All the sessions were systematically arranged keeping in mind the need of the research scholars. The first day sessions were on Research Plan/Design, conducted by Prof. Shriganesh Prabhu, TIFR Mumbai and the second day session was on 'Research Problem Selection and Research Process' conducted by Dr. Prakash R Apte, COE Pune. Dr. Ramaprasad A.T was the coordinator of the workshop of the workshop. 24 participants from the various fields were the present during this workshop.

### **Day 1**

Dr. Ramaprasad welcomed the participants and gave an introductory speech as well as introduced Dr. Shriganesh Prabhu, TIFR, the resource person of day I: Research plan/Design. Dr. Ramaprasad A.T, Department of Physics of Alva's Institute of Engineering and Tecnology felicitate Prof. Prabhu , of TIFR with a Bucky.



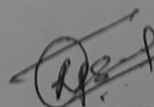
**A Photograph of Research Methodology workshop**

**Day I: Research Plan/Design** was taken by Prof. Prabhu. Prabhu started his session with a brain storming activity. She highlighted different types of Researches – Quantitative, Qualitative and Mixed Method. In quantitative she discussed descriptive, correlation, causal



comparative and experimental. He also talked about cohort study, pre-experimental design, quasi-experimental design and factorial design. In pre-experimental she explained one shot case study, one group-pretest-posttest and static group comparison. In Quasi- experimental Design, He explained non-equivalent control group design and counter balanced design. He focused on numerical data and narrative data. He also discussed the research designs of mixed method study i.e. sequential designs and concurrent designs. Madam has also talked about concurrent triangulation design, concurrent nested design and concurrent transformative design. Apart from this, madam also discussed developmental research and design based research. Session ended with open question answer talk.

**Day II: Research Problem Selection and Research Process** was taken by Dr. Prakash R Apte sir who is an independent researcher. Sir began his session with disciplinary models which are based on applied, soft, pure hard social sciences, arts, humanities and sciences. Sir also highlighted what research is not? He explained that research is not just information gathering, is not rearranging the facts and figures alone and is not playing of words. He focused on what is research? He stresses that research starts with a question or problem, accepts certain basic assumptions, expects critical interpretations, requires unbiased data collection analysis, performs validation, needs articulated documentation and leads to further research. He also talked about types of research i.e. extension or generalization, explanatory (why), description (what, when, who and how), comparative study, life history research, predictive research and evaluation study. He also highlighted online or E- Research. In which he talked about use of research methods to study different aspects of the internet and using the internet to apply research methods for the research questions. Dr. Apte also explained research steps, locating a problem and types of research questions.



H.O.D.

Dept. Of Physics

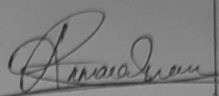
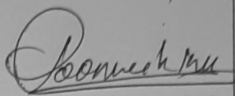
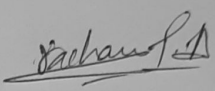
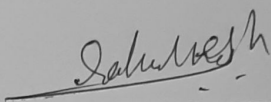
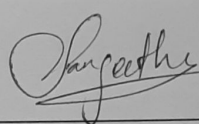
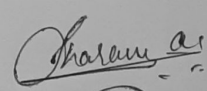
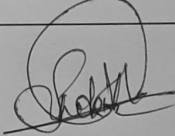
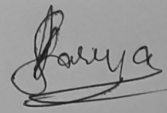
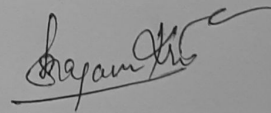
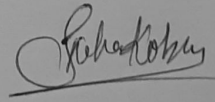
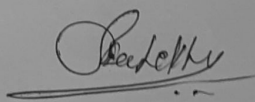
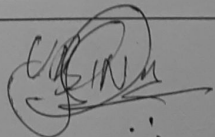
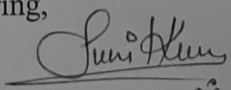
Alva's Institute of Engg. & Technology  
Mijar, MOODBIDRI - 574 225

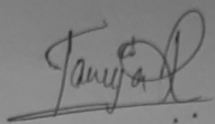
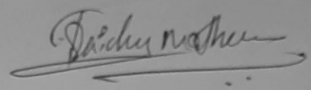
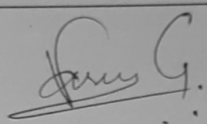
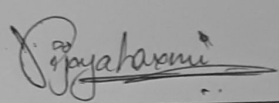
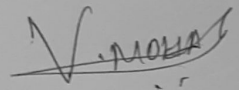
## List of Participants present RM-2019

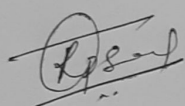
| Sl. No | Name                         | Address   |
|--------|------------------------------|---|
| 1      | Abhishek B                   | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |
| 2      | Adithya K P                  | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |
| 3      | Anjali George                | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |
| 4      | Arjun Rao                    | Department of ECE<br>Alva's Institute of Engineering and Technology,<br>Moodbidri, 574226   |
| 5      | Athira T                     | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |
| 6      | Banuprakash M                | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |
| 7      | Chaithra R                   | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |
| 8      | Deekshith J Shetty           | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |
| 9      | Disha                        | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |
| 10     | Dr. Raghavendra Bairy        | Raghavendra Bairy, M.Sc. (Ph.D.)<br>Assistant Professor,<br>Department of Physics,<br>NMAM Institute of Technology,<br>Nitte - 574110,<br>Karkala Taluk, Udupi District,<br>Karnataka, India.<br>Mob: 9964279415. |
| 11     | Dr. Satyanarayan             | Department of ME<br>Alva's Institute of Engineering and Technology,<br>Moodbidri, 574227  |
| 12     | Dr. Vidya Praveen Bhallamudi | Department of Physics,<br>Indian Institute of Technology Madras,<br>Chennai - 600036, INDIA   |

|    |                          |   |                             |
|----|--------------------------|---|-----------------------------|
| 13 | Dr. Satyanarayan         | Associate Professor and Head, Dept. of Mechanical Engineering<br>Alva's Institute of Engineering and Technology (AIET)<br>Shobhavana Campus, Mijar - 574 225 Moodbidri<br>Mangalore, D.K District, Karnataka, India | <i>Satyanarayan</i>         |
| 14 | Gagana K H               | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  | <i>Gagana K. H.</i>         |
| 15 | Gurushanth B Vaggar      | Department of Mechanical Engineering,<br>Alva's Institute of Engineering and Technology,<br>Mijar-574225  | <i>Gurushanth B. Vaggar</i> |
| 16 | Haritha P                | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  | <i>Haritha P.</i>           |
| 17 | Harsha Thomas            | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  | <i>Harsha Thomas</i>        |
| 18 | Hrushikesh Acharya       | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  | <i>Hrushikesh Acharya</i>   |
| 19 | Jesni Francis            | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  | <i>Jesni Francis</i>        |
| 20 | Kajal K Shetty           | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  | <i>Kajal K. Shetty</i>      |
| 21 | Kshamith Kumar           | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  | <i>Kshamith Kumar</i>       |
| 22 | Lingaraju B U            | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  | <i>Lingaraju B. U.</i>      |
| 23 | M. M. Juvaidd            | M. M. Juvaidd<br>Department of physics,<br>NFMTC-MSRC, IIT Madras, India-600036   | <i>M. M. Juvaidd</i>        |
| 24 | Mr. Laxminarayana Kamath | Mr. Laxminarayana Kamath,<br>Sr. Lecturer & Head,<br>Department of Physics,<br>Excellent PU College, Moodabidri.<br>Mob: 9964022831.  | <i>Laxminarayana Kamath</i> |



|    |                        |   |   |
|----|------------------------|---|---|
| 25 | Mr.Kumaraswamy M C     | Research Scholar<br>Department Of Mechanical Engineering<br>EMAIL ID: Raghu.Mck@Gmail.Com                                       |    |
| 26 | Poornesh Kumar Koorata | Applied Solid Mechanics Lab, Department of Mechanical Engineering, NITK<br>Surathkal, Mangalore 575025<br>kpkoorata@nitk.edu.in |    |
| 27 | Rachana T A            | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |    |
| 28 | Rahul Rajesh           | Department of Physics,<br>Alva's College<br>Moodbidri - 574227, India   |    |
| 29 | Sangeetha              | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |    |
| 30 | Sharanya               | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |   |
| 31 | Shobith Kumar P        | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |  |
| 32 | Shravya D              | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |  |
| 33 | Shyamkrishna C         | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |  |
| 34 | Sneha Kobri M          | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |  |
| 35 | Sreelekha M            | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |  |
| 36 | Subina C               | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India  |  |
| 37 | Sunil Kumar M          | Department of Mechanical engineering,<br>Bangalore Technological Institute,<br>Bangalore-35.                                    |  |

|    |               |  |   |
|----|---------------|--|---|
| 38 | Tanuja R      | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India |  |
| 39 | Traicy Mathew | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India |  |
| 40 | Varun G       | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India |  |
| 41 | Vijayalaxmi   | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India |  |
| 42 | Vinay Mohan   | Department of PG Physics,<br>Alva's College<br>Moodbidri - 574227, India |  |



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



**Alva's Institute of Engineering and Technology**  
Shobhavana Campus MUAR, Moodbidri, Mangalore, Karnataka 574225

## **Certificate of Participation**

This is to certify that .....  
..... has  
participated in a workshop on Research Methodology  
(RM-2019) held on November 21-22, 2019 at AIET  
Moodbidri.

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Coordinator

PRINCIPAL

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