

## OBJECTIVE

The training program consists of both Lectures and Practical related with the application of Mathematical Models and Computing. The lectures include game theory, mathematical model of cooperation and non-cooperation related to social sciences, artificial intelligence, machine learning, biological and network sciences along with illustrations on the utility of the models and a few open problems; Numerical Methods for Ordinary Differential Equations - First order IVPs and Second order BVPs, Error Analysis, Finite Difference schemes for Parabolic and Elliptic PDEs, Finite Element Method; Modelling of Nonlinear Water Waves - Mathematical modelling of weakly nonlinear water waves, Evolution of weakly nonlinear water waves, Derivation of evolution equations of wave packets in different contexts, Stability analysis of uniform wave solutions and challenges in numeric computations; lectures on Numerical system and errors, numerical solutions of system of linear equation.

Practical sessions will consist of the following:

- **Programming in C:** Basics of C programming and problem solving.
- **LaTeX:** Writing Research papers, books, Thesis, Notes, Question set.
- **MATLAB** : Programming in MATLAB

## Target/Eligibility

MSc Mathematics/ MSc Computer Science/M Tech Computer Science/PhD Student/Post Doctoral Fellow (PDF)/ Faculty member.

## CHIEF PATRON

**Prof. KRS Sambasiva Rao**  
Vice Chancellor,  
Mizoram University

## PATRON

**Prof. JK Patnaik**  
Pro Vice Chancellor, MZU

## CHAIRMAN

**Prof. Diwakar Tiwari**  
Dean, School of Physical Sciences, MZU

## COORDINATORS

**Dr. Jay Prakash Singh**      **Dr. S Sarat Singh**  
Mizoram University      Mizoram University

**Prof. M Sundararajan**  
Mizoram University

## JOINT COORDINATORS

**Prof. Jamal Hussain**      **Dr. M. Saroja Devi**  
Mizoram University      Mizoram University

**Mr. Laltanpuia**      **Mr. Sajal Kanti Das**  
Mizoram University      Mizoram University

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## TRAINING PROGRAM ON MATHEMATICAL MODELLING AND COMPUTING

26<sup>th</sup> April – 2<sup>nd</sup> May, 2022

OFFLINE



(Sponsored by: NIT Agartala  
Under STUTI Scheme, DST)

Organized By



Mathematics and Computer Science

**Mizoram University**

Aizawl - 796 004, India

[www.mzu.edu.in](http://www.mzu.edu.in)

## About Mizoram University

Mizoram University was created by an Act of Parliament (No. 8 of 2000) and it became functional from 2<sup>nd</sup> July, 2001. The University is located at Aizawl, the capital city of Mizoram and is spread over 978.1988 acres. Prior to the existence of the Mizoram University, the North-Eastern Hill University (NEHU) with headquarters at Shillong was operating a campus in Mizoram. Headed by a Pro-Vice Chancellor, the then Mizoram Campus of NEHU consisted of seven Post-Graduate Departments, namely, Economics, Education, English, Forestry, Mizo, Psychology and Public Administration. During the last 21 years of its existence, Mizoram University has made considerable progress in terms of infrastructure, academic programmes, manpower and support services.

Mizoram University was accredited 'A' grade by NAAC in 2014 and 2019. The University was ranked as one of the top 100 Universities in India, assessed by the NIRF rankings in 2016, 2017 and 2018 under the Ministry of Education, Government of India. The University has 33 functioning academic departments offering UG, PG, M Phil and Ph D programmes under 8 Schools of Study. The University has 35 affiliated colleges and one constituent college.

The University Life is lively and diverse, with students coming from different parts of the world. The University is committed to extending its rich academic resources to the public, locally, nationally and internationally.

## SPEAKERS



**Prof. Surajit Borkotokey**  
Dibrugarh University



**Prof. Natesan Srinivasan**  
IIT Guwahati



**Prof. Suma Debsharma**  
Calcutta University

**Prof. Samira Behera**  
Assam University



**Prof. Jamal Hussain**  
Mizoram University

**Prof. M. Sundararajan**  
Mizoram University



**Dr. Jay Prakash Singh**  
Mizoram University

**Dr. S. Sarat Singh**  
Mizoram University



## About Department of Mathematics and Computer Science

The Department of Mathematics and Computer Science came into existence in the year 2006 with an intake of first batch of Post Graduate students in July, 2007. The faculty members of the Department are specialized in disciplines of Pure & Applied Mathematics and Computer Science. The syllabus has been framed at par with other Universities of the Country and as per UGC model syllabus. Choice Based Credit System (CBCS) is implemented from the year 2012. The Department is currently supported by DST-FIST. The Department also received grants from UGC, DIT, SERB, CSIR and NBHM.

Vision of the Department:

- To build the Department as a Centre of Excellence
- To open job oriented short term courses that will benefit local youths to get employment.

The Department offers degrees in MSc & PhD in Mathematics & Computer Science & CCC.

## REGISTRATION

Click the link to download Application form:

[https://drive.google.com/file/d/1\\_Tnq4UYUn\\_7tb\\_nUppxz4R8lEa4AfAB5B/view?usp=sharing](https://drive.google.com/file/d/1_Tnq4UYUn_7tb_nUppxz4R8lEa4AfAB5B/view?usp=sharing)

**Fill up & send to:** mcs@mzu.edu.in on or before 15<sup>th</sup> April 2022

Selected Participants will be provided

- TA: 3AC/bus/sumo fare.
- Free Boarding/lodging.