



# One Week Online High-End Workshop (Karyashala) on Software Tools and Techniques used in EHEP and its Applications

**July 12 - 19, 2021**



## Objective

Department of Physics in collaboration with Department of ECE, MNIT Jaipur is organising one week online High-End Workshop (Karyashala) on "Software Tools and Techniques used in EHEP and its Applications" (Under Accelerate Vigyan Scheme of SERB) from July 12 to 19, 2021. The aim of this workshop is to introduce about the particle identification techniques, tracking methods, software tools and State-of-the-Art Machine learning data analysis techniques used in Particle Physics. This workshop is specially designed to improve the research skills of PG and Ph.D. students, who are working in the field of Experimental High Energy Physics.

## Eligibility Criteria

- Ph.D. students working in the area of Experimental High Energy Physics affiliated to universities, colleges, and private academic institutions. A few bright and research motivated final year students of M.Sc./M.Tech. with specialization in Nuclear & Particle Physics will also be selected.
- Pre-requisites: Basic knowledge of
  1. Particle Physics
  2. Matter particle interaction
  3. C++ Programming language

## Organizing Committee

### Patron

**Prof. Udaykumar R. Yaragatti**  
Director, MNIT Jaipur

### Chair(s)

**Dr. Rahul Singhal**  
Head, Department of Physics  
**Prof. Vijay Janyani**  
Head, Department of ECE

### Convener

Dr. Kavita Lalwani (Physics)

### Coordinator

Dr. Sarthak Singhal (ECE)

### Local Organizing Committee

Dr. Rajendra Mitharwal, MNIT Jaipur  
Dr. Kuldeep Singh, MNIT Jaipur  
Dr. Rajesh Saha, MNIT Jaipur  
Dr. Srinivasa Rao Nelamarri, MNIT Jaipur  
Dr. K Venkataratnam Kamma, MNIT Jaipur  
Dr. Anees Ahmad, MNIT Jaipur

### National Advisory Committee

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Prof. M. M. Sharma, MNIT Jaipur  
Prof. D. Boolchandani, MNIT Jaipur  
Dr. Rajeev Agrawal, MNIT Jaipur

## Topics

1. Standard Model and beyond
2. Neutrino Physics
3. Flavour Physics
4. Quark Gluon Plasma
5. Dark Matter
6. Relativistic Kinematics
7. Modern Detectors and its technology.
8. Accelerator
9. Monte Carlo Simulation, Machine Learning
10. Statistical Methods & Error Analysis
11. Physics studies at EHEP Facilities

*Three sessions (one hour each) every day*

## Registration Procedure

1. Register at <https://forms.gle/rqNyAbWyqzsmmpca8>
2. Applicants (M.Sc./M.Tech. and Ph.D. students) need to upload:
  - (a) A letter of authentication from their Supervisor/ Head of the Department/Head of the Institute indicating their association with the institute and "No Objection Certificate (NOC)" for allowing their student to undergo training in the workshop, if selected (Format is enclosed in registration form).
  - (b) One recommendation letter from Supervisor

**Last date of online registration: June 25, 2021**

**Intimation to selected participants (via email):**

**June 30, 2021**

## Contact Details

For any information, please contact @

Email: [ehp2021.karyashala@gmail.com](mailto:ehp2021.karyashala@gmail.com)