



Web Based Course on

Radiation Detectors : A How to Approach

5th - 9th April 2021



Organized by

Department of Physics, Central University of Jharkhand,
Cheri-Manatu, Kamre, Kanke, Ranchi, Jharkhand-835222

In Collaboration with

UGC-DAE Consortium for Scientific Research, Kolkata Centre
Sector III, LB-8 Bidhan Nagar, Kolkata 700106

Nuclear Physics has emerged as one of the most happening domain of research pursuits in the recent decades. The contemporary endeavours are yielding results of path breaking impact on our understanding of the nucleus and its myriad excitations. This can largely be attributed to the simultaneous advances in the field of particle accelerators, radiation detectors and the accomplishments in the areas of pulse processing as well as data acquisition hardware and methodologies. It is of pride to note that the nuclear physics research community in the country is making phenomenal contributions in the progress of the subject through the many feats. To carry the legacy forward, we need to train our youngest minds who would eventually spearhead the research and the associated developments. The first stride in this fascinating journey might embark with an elaboration on the fundamentals of radiation detectors and the associated techniques. Though touched upon in the text of the Post-Graduate (PG) curriculum, these topics demand an advanced discourse that is expected to facilitate the students with a deeper insight into this frontier of research.

This web based lecture series is being launched for the purpose and is primarily intended to cater to the post-graduate students of physics as well as research scholars / post-doctoral researchers who are working in the relevant field. The lectures (centered on the PG curriculum) are intended to commence with the fundamentals of the subject and lead the audience through different topics such as interaction of radiation with matter, radiation detectors, pulse processing electronics, data acquisition systems, data processing algorithms. It is envisaged to provide an exposure to the experiments, as well, followed by an in-depth analysis of the recorded data within the constraints of the current format.

Those interested to be in the audience may please register by 30th March 2021 using the Google form link given below;
<https://forms.gle/jsai865C6ADVhnyK8>.

Post Graduate students to kindly include their specialization while research scholars to mention their area of research in the communication. The exact platform for hosting the lectures and the resources along with other details shall be eventually communicated to the registered participants.

The Central University of Jharkhand, started with a vision to specially focus on relevant present age educational drives with an emphasis on research in cutting edge technologies. It offers M.Sc. in Physics, Post graduate and Ph.D. programmes in almost all its Schools/Centres of studies. The University is open to new ideas in course curricula and research proposals, collaboration, interaction and capacity building programmes. The University aims to nurture and promote multi-disciplinary research spanning across the domains of science.

UGC-DAE Consortium for Scientific Research is an autonomous institute of the University Grants Commission (UGC), which aims to facilitate the University utilization of the mega science facilities established by the Department of Atomic Energy (DAE). This novel endeavour, aims to promote interaction amongst the scientists working in the research centres of the Department of Atomic Energy and the faculty from the universities and other institutions of higher learning, and to enable young students to work on programmes of national importance under the joint guidance of the faculty from universities and the scientists of DAE. It is envisaged that these efforts would uniquely nurture an organic linkage between the university system and research centres of DAE. The Kolkata Centre, supports the use of Radiation (Particulate as well as electromagnetic) to probe matter (both living as well as non-living)

Patrons

Prof. Ratan Kumar Dey, Vice-Chancellor (Acting), CUJ, Ranchi
Dr. Abhijit Saha, Director, UGC DAE CSR, Kolkata Centre, Kolkata

Organizing Committee

Prof. Sarang Medhekar—Department of Physics, CUJ, Ranchi -Member
Dr. Sandeep S. Ghugre, UGC DAE CSR, Kolkata Centre, Kolkata - Member
Dr. Rajarshi Raut, UGC DAE CSR, Kolkata Centre, Kolkata - Convenor
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