



**SIKKIM MANIPAL INSTITUTE OF TECHNOLOGY (SMIT)
IN
INDIA-CMS**

**Gobinda C Mishra
&
Raman K Jha
SMIT**

September 27-28, 2007

India-CMS Meeting,
Delhi University, Delhi

SMU at a Glance

- Sikkim Manipal University of Health, Medical and Technological Sciences (SMUHMTS), the only University in Sikkim, recognized by UGC.
- Established in March 12, 1992 as a result of the agreement signed between the Government of Sikkim and the Manipal Pai Foundation.
- The University has two constituent colleges namely
Sikkim Manipal Institute of Technology
Sikkim Manipal Institute of Medical Sciences
- SMIT has 8 Departments dedicated to teaching and research in Basic Science and Technology







Physics Department at SMIT

- **Has 7 Faculties**
 - One in Experimental High Energy Nuclear Physics
 - One in Theoretical Particle Physics
- **Received grants from DST under FIST scheme in 2006**
- **Programs run by Physics Department:**
 - B. Tech. Engineering program
 - 2 year M. Sc. Program running since 2000
 - Ph. D.
- **Human Resources:**
 - M. Sc. Students (3 to 4 students per year for project work)
 - Ph. D. students (currently 2 students are undergoing course work and will be available to work on CMS)
 - Hope to form a HEP group

CV of G. C. Mishra

- **M. Sc. (Physics): 1989-1991**
Utkal University, Bhubaneswar
Special Paper: Particle Physics
- **Post M. Sc. In Advanced Physics: 1992-1993**
Institute of Physics, Bhubaneswar
- **Ph. D. (Physics): 1993-2000**
Institute of Physics, Bhubaneswar
Thesis Title: *“Study of Rapidity Distribution and Azimuthal Distribution of Photons in Ultra-Relativistic Heavy Ion Collisions at CERN-SPS”*
(Based on WA98 Experiment)
- **Post Doctoral Fellow: March, 2000- July, 2004**
Georgia State University, Atlanta, USA
Worked for PHENIX experiment at RHIC, BNL
- **Post Doctoral Fellow: September, 2004- March, 2005**
VECC, Kolkata
Worked for the INO Collaboration
- **Reader: March, 2005 - present**
Department of Physics, SMIT

CV - continued

- Presented about 8 talks
- Contributed to over 50 papers in WA98 and PHENIX experiments.
- Expertise in detector simulation, DAQ software, Level-2 trigger, online monitoring, and software development for data analysis.
- Contributed to feasibility study of J/Ψ polarization in PHENIX.

Brief CV of Raman K Jha

Presently Professor & Head, Deptt of Physics, SMIT

Academic Qualification:

- **Doctor of Philosophy (PhD)** in Particle Physics, University Of Delhi
- **Master of Technology {Information Technology}**, SMIT Sikkim {Specialization: Quantum Computing and Quantum Information Processing, Data Mining, Distributed systems}
- **Master of Science (Physics)** {Specialization: Foundation of Quantum Mechanics, Group Theory}, University Of Delhi

Research Work:

- **Field of Specialization:** Foundation of Quantum Mechanics, Group Theory, Information Technology, Quantum Computation, Data Mining, Image Processing.
- Title of Ph.D.: “Study of some temperature dependent models of particle interaction in QED and QCD in coordinate space”

Area of research: A Novel and alternative way of explanation of mass of existing particles (mesons) and explanation of soft X-ray lines in the solar spectrum, Astrophysical plasma, Quark Gluon Plasma,

Research Scholars being guided: Two Research Scholars are now undergoing the course work in the area of Particle Physics who are ready to dedicate themselves for CMS

Invited Talk: 4

List of publications: 9

Possible Contribution to India-CMS

- **In close association with Delhi University group**
 - Experience in detector fabrication, testing, calibration, etc.
 - Online DAQ and trigger system
 - Online Monitoring
 - Simulation
 - Software development for data analysis

- **Physics interest:**
 - Higgs search
 - High p_T
 - Heavy ion physics with CMS

**Looking forward to join India-CMS
collaboration and work effectively for
CMS Physics**

Thank you