भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर
Indian Institute of Technology Bhubaneswar

Press Release

IIT Bhubaneswar Research Featured in Prestigious CERN Courier Magazine

Bhubaneswar, 11th June 2026: Research carried out by scientists from the School of Basic Sciences at the Indian Institute of Technology (IIT) Bhubaneswar has been featured in the latest issue of *Energy Frontiers*, a special section of the internationally renowned *CERN Courier* magazine. The article, titled *"A Sharper Probe of a Rare Bs Decay,"* highlights important findings from the Compact Muon Solenoid (CMS) experiment at CERN's Large Hadron Collider (LHC), one of the world's largest and most advanced scientific research facilities.

The featured article is based on a study conducted as part of the CMS Collaboration at CERN, to which IIT Bhubaneswar researchers **Dr. Seema Bahinipati, Mr. Rishabh Raturi** and **Dr. Samarendra Nayak** made significant contributions. The study investigates extremely rare behaviour of subatomic particles, helping scientists better understand how the fundamental building blocks of the universe interact with one another.

The findings revealed certain differences between experimental observations and existing theoretical predictions. While further studies are needed, such observations are important because they may provide clues to new scientific phenomena that are not yet fully explained by current theories of particle physics.

IIT Bhubaneswar has been an active participant in the CMS Collaboration through its research in experimental particle physics. Researchers from the Institute contribute to international efforts aimed at understanding the fundamental laws of nature by analysing data generated at the Large Hadron Collider. The feature in *CERN Courier* recognizes the valuable scientific contributions made by the IIT Bhubaneswar team as part of this major global collaboration.

The inclusion of the Institute's research in *CERN Courier* is a matter of pride for IIT Bhubaneswar. The magazine is widely respected in the fields of particle physics and accelerator science and is read by researchers, educators, policymakers, and science

communicators across the world. The feature highlights the growing international recognition of research being carried out at the Institute.

The CMS experiment is one of the flagship experiments at CERN and brings together thousands of scientists, engineers, technicians, and students from around the world. The collaboration is widely known for its role in the discovery of the Higgs boson and continues to explore some of the biggest mysteries of the universe, including the nature of matter, energy, space, and time.

Expressing their happiness over the recognition, the researchers noted that the feature reflects the increasing global visibility of IIT Bhubaneswar's research contributions and highlights the important role being played by Indian institutions in international scientific collaborations.

This achievement further strengthens IIT Bhubaneswar's reputation as a leading centre for scientific research and demonstrates its commitment to advancing knowledge through world-class research and international partnerships.

About the CMS Collaboration

The Compact Muon Solenoid (CMS) is one of the largest scientific collaborations in the world and is one of the flagship experiments at CERN's Large Hadron Collider. It brings together thousands of scientists, engineers, technicians, and students from institutions across the globe to study the fundamental building blocks of the universe and answer some of the most important questions in modern science.

Link of the Paper: https://cerncourier.com/wp-content/uploads/2026/06/CERNCourier2026MayJun-digitaledition.pdf

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