



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर Indian Institute of Technology Bhubaneswar

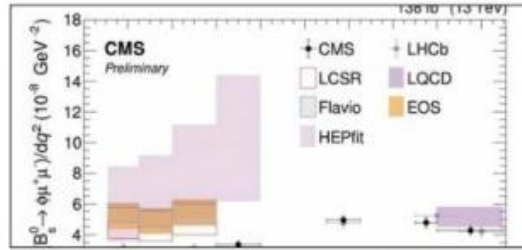
Media/Publication	The Pioneer		
Date	12 th June, 2026	Language	English
Headline	IIT BBS research featured in 'CERN Courier'		

IIT BBS research featured in 'CERN Courier'

Study on rare particle decay by scientists gains global recognition

PHS ■ Bhubaneswar

Marking a significant milestone for Indian scientific research on the global stage, a study by scientists from the School of Basic Sciences at the 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 study was carried out as part of the CMS Collaboration at CERN, with significant contributions from IIT Bhubaneswar researchers Dr Seema Bahinipati, Rishabh Raturi and Dr Samarendra Nayak. It investigates the extremely rare behaviour of subatomic particles, helping scientists better understand how the fun-

damental 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 as they may provide clues to new scientific phenomena 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 LHC. The feature in CERN Courier recognises the institute's valuable scientific contribution to this major global collaboration.

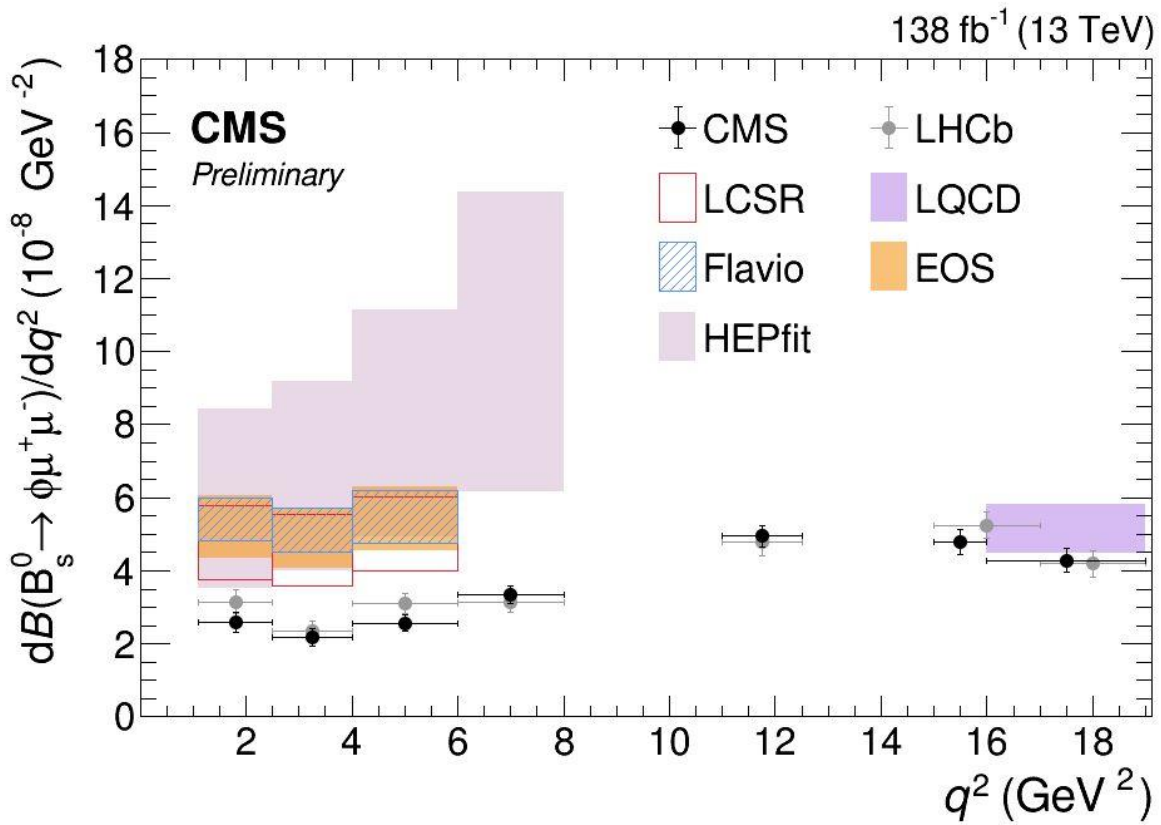
Widely respected in the fields of particle physics and accelerator science, CERN Courier is read by researchers, educators, policymakers and science communicators across the world. The publication reflects the growing international recognition of research being carried out at IIT Bhubaneswar.

The CMS experiment, one of CERN's flagship projects, brings together thousands of scientists, engineers, technicians and students from institutions worldwide. Known for its role in the discovery of the Higgs boson, the collaboration continues to explore fundamental questions about matter, energy, space and time.



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ଭୁବନେଶ୍ୱର : ଭାରତୀୟ ପ୍ରଯୁକ୍ତି ପ୍ରତିଷ୍ଠାନ (ଆଇଆଇଆଇଟି) ଭୁବନେଶ୍ୱରର ସ୍କୁଲ ଅଫ୍ ବେସିକ୍ ସାଇନ୍ସର ବୈଜ୍ଞାନିକମାନଙ୍କ ଦ୍ୱାରା କରାଯାଇଥିବା ଗବେଷଣାକୁ ଆନ୍ତର୍ଜାତୀୟ ସ୍ତରରେ ପ୍ରସିଦ୍ଧ ସର୍ଣ୍ଣ (CERN) କୋରିଅର ପତ୍ରିକାର ଏକ ସ୍ୱତନ୍ତ୍ର ବିଭାଗ, ଏନର୍ଜି ପ୍ରଣିୟର୍ସର ସଦ୍ୟତମ ସଂଖ୍ୟାରେ ସ୍ଥାନିତ କରାଯାଇଛି । “ଏ ସାର୍ପର ପ୍ରୋବ୍ ଅଫ୍ ଏ ରେନ୍ୟାର ବିଏସ୍ ଡିକେ” ଶୀର୍ଷକ ଏହି ଲେଖାଟି ସର୍ଣ୍ଣର ଲାର୍ଜ ହାଇଡ୍ରନ୍ କୋଲାଇଡର୍ (LHC) ରେ କମ୍ପାକ୍ଟ ମୁଓନ୍ ସୋଲେନଏଡ୍ (CMS) ପରୀକ୍ଷଣରୁ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ ତଥ୍ୟକୁ ଉତ୍ତ୍ୱଳ କରିଥାଏ, ଯାହାକି ବିଶ୍ୱର ସର୍ବବୃହତ ଏବଂ ସର୍ବୋତ୍ତମ ବୈଜ୍ଞାନିକ ଗବେଷଣା ସୁବିଧା ମଧ୍ୟରୁ ଗୋଟିଏ ।

ଏହି ବର୍ଣ୍ଣିତ ପ୍ରକ୍ଷତି ସର୍ଣ୍ଣର ସିଏମଏସ୍ କୋଲାଇଡର୍ରେସନର ଅଂଶ ଭାବରେ କରାଯାଇଥିବା ଏକ ଅଧ୍ୟୟନ ଉପରେ ଆଧାରିତ, ଯେଉଁଥିରେ ଆଇଆଇଆଇଟି ଭୁବନେଶ୍ୱରର ଗବେଷକ ତତ୍ତ୍ୱର ସୀମା ବାହିନୀପତି, ଶ୍ରୀ ରିଷଭ ରାତୁରୀ ଏବଂ ତତ୍ତ୍ୱର ସମରେନ୍ଦ୍ର ନାୟକ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ ଅବଦାନ



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ଦେଇଛନ୍ତି । ଏହି ଅଧ୍ୟୟନ ଉପ-ଆଣବିକ କଣିକାର ଅତ୍ୟନ୍ତ ବିରଳ ଆଚରଣର ଚନ୍ଦ୍ର କରେ, ଯାହା ବୈଜ୍ଞାନିକମାନଙ୍କୁ ବ୍ରହ୍ମାଣ୍ଡର ମୌଳିକ ଗଠନ ଖଣ୍ଡଗୁଡ଼ିକ ପରସ୍ପର ସହିତ କିପରି କ୍ରିୟାଶୀଳ ହୁଏ ତାହା ଭଲ ଭାବରେ ବୁଝିବାରେ ସାହାଯ୍ୟ କରେ ।

ଏହି ଫଳାଫଳଗୁଡ଼ିକ ପରୀକ୍ଷାମୂଳକ ପର୍ଯ୍ୟବେକ୍ଷଣ ଏବଂ ବିଦ୍ୟମାନ ତାତ୍ତ୍ୱିକ ପୂର୍ବାନୁମାନ ମଧ୍ୟରେ କିଛି ପାର୍ଥକ୍ୟ ପ୍ରକାଶ କରିଥିଲା । ଯଦିଓ ଆହୁରି ଅଧ୍ୟୟନ ଆବଶ୍ୟକ, ଏପରି ପର୍ଯ୍ୟବେକ୍ଷଣ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ କାରଣ ସେମାନେ ନୂତନ ବୈଜ୍ଞାନିକ ଘଟଣାଗୁଡ଼ିକର ସୁରାକ ପ୍ରଦାନ କରିପାରନ୍ତି ଯାହା ବର୍ତ୍ତମାନର କଣିକା ପଦାର୍ଥ ବିଜ୍ଞାନର ତତ୍ତ୍ୱ ଦ୍ୱାରା ସମ୍ପୂର୍ଣ୍ଣ ବ୍ୟାଖ୍ୟା କରାଯାଇ ନାହିଁ ।

ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ପରୀକ୍ଷାମୂଳକ କଣିକା ପଦାର୍ଥ ବିଜ୍ଞାନରେ ଏହାର ଗବେଷଣା ମାଧ୍ୟମରେ ସିଏମଏସ କୋଲୋବରେସନରେ ଏକ ସକ୍ରିୟ ଅଂଶଗ୍ରହଣକାରୀ ରହିଆସିଛି । ପ୍ରତିଷ୍ଠାନର ଗବେଷକମାନେ ଲାର୍ଜ ହାଡ୍ରନ୍ କୋଲାଇଡରରେ ସୃଷ୍ଟି ହୋଇଥିବା ତଥ୍ୟ ବିଶ୍ଳେଷଣ କରି ପ୍ରକୃତିର ମୌଳିକ ନିୟମଗୁଡ଼ିକୁ ବୁଝିବା ପାଇଁ ଲକ୍ଷ୍ୟ ରଖୁଥିବା ଆନ୍ତର୍ଜାତୀୟ ପ୍ରୟାସରେ ଯୋଗଦାନ ଦିଅନ୍ତି । ସର୍ଣ୍ଣ (CERN) କୋରିଅରରେ ଥିବା ଏହି ବୈଶିଷ୍ଟ୍ୟ ଏହି ପ୍ରମୁଖ ବିଶ୍ୱସ୍ତରୀୟ ସହଯୋଗର ଅଂଶ ଭାବରେ ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ଦଳ ଦ୍ୱାରା କରାଯାଇଥିବା ମୂଲ୍ୟବାନ ବୈଜ୍ଞାନିକ ଅବଦାନକୁ ସ୍ୱୀକୃତି ଦିଏ ।

ସିଇଆରଏନ କୋରିଅରରେ ପ୍ରତିଷ୍ଠାନର ଗବେଷଣାକୁ ସାମିଲ କରିବା ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ପାଇଁ ଗର୍ବର ବିଷୟ । ଏହି ପଦ୍ମିକାଟି କଣିକା ଭୌତିକ ବିଜ୍ଞାନ ଏବଂ ଦୂରକ ବିଜ୍ଞାନ କ୍ଷେତ୍ରରେ ବହୁଳ ଭାବରେ ସମ୍ମାନିତ ଏବଂ ବିଶ୍ୱବ୍ୟାପୀ ଗବେଷକ, ଶିକ୍ଷକ, ନୀତି ନିର୍ଦ୍ଧାରକ ଏବଂ ବିଜ୍ଞାନ ଯୋଗାଯୋଗକାରୀଙ୍କ ଦ୍ୱାରା ପଢ଼ାଯାଏ । ଏହି ସଫଳତା, ପ୍ରତିଷ୍ଠାନରେ କରାଯାଉଥିବା ଗବେଷଣାର ବର୍ଦ୍ଧିତ ଆନ୍ତର୍ଜାତୀୟ ସ୍ୱୀକୃତିକୁ ପ୍ରତିଫଳିତ କରୁଛି ।

ସିଏମଏସ ପରୀକ୍ଷଣ ସର୍ଣ୍ଣର ପ୍ରମୁଖ ପରୀକ୍ଷଣ ମଧ୍ୟରୁ ଗୋଟିଏ ଏବଂ ଏହା ସାରା ବିଶ୍ୱର ହଜାର ହଜାର ବୈଜ୍ଞାନିକ, ଇଞ୍ଜିନିୟର, ଟେକ୍ନିସିଆନ୍ ଏବଂ ଛାତ୍ରଙ୍କୁ ଏକତ୍ରିତ କରେ । ଏହି ସହଯୋଗ ହିସ୍ତ ବୋସନ୍ ଆବିଷ୍କାରରେ ଏହାର ଭୂମିକା ପାଇଁ ବହୁଳ ଭାବରେ ଜଣାଶୁଣା ଏବଂ ଏହା ବ୍ରହ୍ମାଣ୍ଡର କିଛି ବଡ଼ ରହସ୍ୟ ଅନୁସନ୍ଧାନ କରିଚାଲିଛି, ଯେଉଁଥିରେ ପଦାର୍ଥ, ଶକ୍ତି, ସ୍ଥାନ ଏବଂ ସମୟର ପ୍ରକୃତି ଅନ୍ତର୍ଭୁକ୍ତ ।

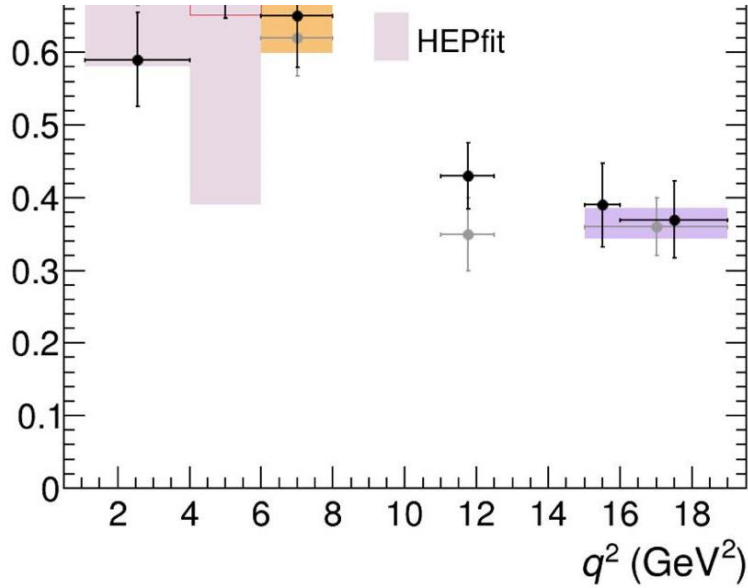
ଏହି ମାନ୍ୟତା ପାଇଁ ଖୁସି ପ୍ରକାଶ କରି ଗବେଷକମାନେ ଉଲ୍ଲେଖ କରିଛନ୍ତି ଯେ ଏହି ବୈଶିଷ୍ଟ୍ୟ ଆଇଆଇଟି ଭୁବନେଶ୍ୱରର ଗବେଷଣା ଅବଦାନର ବର୍ଦ୍ଧିତ ବିଶ୍ୱ ଦୃଶ୍ୟମାନତାକୁ ପ୍ରତିଫଳିତ କରେ ଏବଂ ଆନ୍ତର୍ଜାତୀୟ ବୈଜ୍ଞାନିକ ସହଯୋଗରେ ଭାରତୀୟ ପ୍ରତିଷ୍ଠାନଗୁଡ଼ିକ ଦ୍ୱାରା ନିର୍ବାହ କରାଯାଉଥିବା ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ ଭୂମିକାକୁ ଉଜ୍ଜ୍ୱଳ କରେ ।

ଏହି ସଫଳତା ବୈଜ୍ଞାନିକ ଗବେଷଣାର ଏକ ଅଗ୍ରଣୀ କେନ୍ଦ୍ର ଭାବରେ ଆଇଆଇଟି ଭୁବନେଶ୍ୱରର ଖ୍ୟାତିକୁ ଆହୁରି ମଜବୁତ କରେ ଏବଂ ବିଶ୍ୱସ୍ତରୀୟ ଗବେଷଣା ଏବଂ ଆନ୍ତର୍ଜାତୀୟ ସହଯୋଗୀତା ମାଧ୍ୟମରେ ଜ୍ଞାନକୁ ଆଗକୁ ବଢ଼ାଇବା ପାଇଁ ଏହାର ପ୍ରତିବନ୍ଧତାକୁ ପ୍ରଦର୍ଶନ କରେ ।



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर Indian Institute of Technology Bhubaneswar

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Link	https://prajuktiodisha.com/iit-bhubaneswar-research-featured-in-prestigious-cern-courier-magazine/		



ଭୁବନେଶ୍ୱର : ଭାରତୀୟ ପ୍ରଯୁକ୍ତି ପ୍ରତିଷ୍ଠାନ (ଆଇଆଇଆଇଟି) ଭୁବନେଶ୍ୱରର ସ୍କୁଲ ଅଫ୍ ବେସିକ୍ ସାଇନ୍ସର ବୈଜ୍ଞାନିକମାନଙ୍କ ଦ୍ୱାରା କରାଯାଇଥିବା ଗବେଷଣାକୁ ଆନ୍ତର୍ଜାତୀୟ ସ୍ତରରେ ପ୍ରସିଦ୍ଧ ସର୍ଣ୍ଣ (CERN) କୋରିଅର ପତ୍ରିକାର ଏକ ସ୍ୱତନ୍ତ୍ର ବିଭାଗ, ଏନର୍ଜି ପ୍ରଫିଣ୍ଡର୍ସର ସଦ୍ୟତମ ସଂଖ୍ୟାରେ ସ୍ଥାନିତ କରାଯାଇଛି। “ଏ ସାର୍ପର ପ୍ରୋଭ୍ ଅଫ୍ ଏ ରେୟାର ବିଏସ୍ ଡିକେ” ଶୀର୍ଷକ ଏହି ଲେଖାଟି ସର୍ଣ୍ଣର ଲାର୍ଜ ହାଡ୍ରନ୍ କୋଲାଇଡର୍ (LHC) ରେ କମ୍ପାକ୍ଟ ମୁଓନ୍ ସୋଲେନଏଡ୍ (CMS) ପରୀକ୍ଷଣରୁ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ ତଥ୍ୟକୁ ଉଦ୍ଧାର କରିଥାଏ, ଯାହାକି ବିଶ୍ୱର ସର୍ବବୃହତ ଏବଂ ସର୍ବୋତ୍ତମ ବୈଜ୍ଞାନିକ ଗବେଷଣା ସୁବିଧା ମଧ୍ୟରୁ ଗୋଟିଏ।

ଏହି ବର୍ଣ୍ଣିତ ପ୍ରକାଶିତ ସର୍ଣ୍ଣର ସିଏମଏସ୍ କୋଲାଇଡରରେ ସନର ଅଂଶ ଭାବରେ କରାଯାଇଥିବା ଏକ ଅଧ୍ୟୟନ ଉପରେ ଆଧାରିତ, ଯେଉଁଥିରେ ଆଇଆଇଆଇଟି ଭୁବନେଶ୍ୱରର ଗବେଷକ ତତ୍ତ୍ୱର ସୀମା ବାହିନୀପତି, ଶ୍ରୀ ରିକ୍ଷଭ ରାତୁରୀ ଏବଂ ତତ୍ତ୍ୱର ସମରେନ୍ଦ୍ର ନାୟକ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ ଅବଦାନ ଦେଇଛନ୍ତି। ଏହି ଅଧ୍ୟୟନ ଉପ-ଆଣବିକ କଣିକାର ଅତ୍ୟନ୍ତ ବିରଳ ଆଚରଣର ତଦନ୍ତ କରେ, ଯାହା ବୈଜ୍ଞାନିକମାନଙ୍କୁ ବ୍ରହ୍ମାଣ୍ଡର ମୌଳିକ ଗଠନ ଖଣ୍ଡଗୁଡ଼ିକ ପରସ୍ପର ସହିତ କିପରି କ୍ରିୟାଶୀଳ ହୁଏ ତାହା ଭଲ ଭାବରେ ବୁଝିବାରେ ସାହାଯ୍ୟ କରେ।



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर Indian Institute of Technology Bhubaneswar

ଏହି ଫଳାଫଳଗୁଡ଼ିକ ପରୀକ୍ଷାମୂଳକ ପର୍ଯ୍ୟବେକ୍ଷଣ ଏବଂ ବିଦ୍ୟମାନ ତାତ୍ତ୍ୱିକ ପୂର୍ବାନୁମାନ ମଧ୍ୟରେ କିଛି ପାର୍ଥକ୍ୟ ପ୍ରକାଶ କରିଥିଲା। ଯଦିଓ ଆହୁରି ଅଧ୍ୟୟନ ଆବଶ୍ୟକ, ଏପରି ପର୍ଯ୍ୟବେକ୍ଷଣ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ କାରଣ ସେମାନେ ନୂତନ ବୈଜ୍ଞାନିକ ଘଟଣାଗୁଡ଼ିକର ସୁରାକ ପ୍ରଦାନ କରିପାରନ୍ତି ଯାହା ବର୍ତ୍ତମାନର କଣିକା ପଦାର୍ଥ ବିଜ୍ଞାନର ତତ୍ତ୍ୱ ଦ୍ୱାରା ସମ୍ପୂର୍ଣ୍ଣ ବ୍ୟାଖ୍ୟା କରାଯାଇ ନାହିଁ।

ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ପରୀକ୍ଷାମୂଳକ କଣିକା ପଦାର୍ଥ ବିଜ୍ଞାନରେ ଏହାର ଗବେଷଣା ମାଧ୍ୟମରେ ସିଏମଏସ କୋଲୋବରେସନରେ ଏକ ସକ୍ରିୟ ଅଂଶଗ୍ରହଣକାରୀ ରହିଆସିଛି। ପ୍ରତିଷ୍ଠାନର ଗବେଷକମାନେ ଲାର୍ଜ ହାଡ୍ରନ୍ କୋଲାଇଡରରେ ସୃଷ୍ଟି ହୋଇଥିବା ତଥ୍ୟ ବିଶ୍ଳେଷଣ କରି ପ୍ରକୃତିର ମୌଳିକ ନିୟମଗୁଡ଼ିକୁ ଚୁଢ଼ିବା ପାଇଁ ଲକ୍ଷ୍ୟ ରଖୁଥିବା ଆନ୍ତର୍ଜାତୀୟ ପ୍ରୟାସରେ ଯୋଗଦାନ ଦିଅନ୍ତି। ସର୍ଣ୍ଣ (CERN) କୋରିଅରରେ ଥିବା ଏହି ବୈଶିଷ୍ଟ୍ୟ ଏହି ପ୍ରମୁଖ ବିଶ୍ୱସ୍ତରୀୟ ସହଯୋଗର ଅଂଶ ଭାବରେ ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ଦଳ ଦ୍ୱାରା କରାଯାଇଥିବା ମୂଲ୍ୟବାନ ବୈଜ୍ଞାନିକ ଅବଦାନକୁ ସ୍ୱୀକୃତି ଦିଏ।

ସିଇଆରଏନ କୋରିଅରରେ ପ୍ରତିଷ୍ଠାନର ଗବେଷଣାକୁ ସାମିଲ କରିବା ଆଇଆଇଟି ଭୁବନେଶ୍ୱର ପାଇଁ ଗର୍ବର ବିଷୟ। ଏହି ପଦ୍ଧତି କଣିକା ଭୌତିକ ବିଜ୍ଞାନ ଏବଂ ଉଚ୍ଚ ବିଜ୍ଞାନ କ୍ଷେତ୍ରରେ ବହୁଳ ଭାବରେ ସମ୍ମାନିତ ଏବଂ ବିଶ୍ୱବ୍ୟାପୀ ଗବେଷକ, ଶିକ୍ଷକ, ନୀତି ନିର୍ଦ୍ଧାରକ ଏବଂ ବିଜ୍ଞାନ ଯୋଗାଯୋଗକାରୀଙ୍କ ଦ୍ୱାରା ପଢ଼ାଯାଏ। ଏହି ସଫଳତା, ପ୍ରତିଷ୍ଠାନରେ କରାଯାଉଥିବା ଗବେଷଣାର ବର୍ଦ୍ଧିତ ଆନ୍ତର୍ଜାତୀୟ ସ୍ୱୀକୃତିକୁ ପ୍ରତିଫଳିତ କରୁଛି।

ସିଏମଏସ ପରୀକ୍ଷଣ ସର୍ଣ୍ଣର ପ୍ରମୁଖ ପରୀକ୍ଷଣ ମଧ୍ୟରୁ ଗୋଟିଏ ଏବଂ ଏହା ସାରା ବିଶ୍ୱର ହଜାର ହଜାର ବୈଜ୍ଞାନିକ, ଇଞ୍ଜିନିୟର, ଟେକ୍ନିସିଆନ୍ ଏବଂ ଛାତ୍ରଙ୍କୁ ଏକତ୍ରିତ କରେ। ଏହି ସହଯୋଗ ହିନ୍ଦୁ ବୋସନ୍ ଆବିଷ୍କାରରେ ଏହାର ଭୂମିକା ପାଇଁ ବହୁଳ ଭାବରେ ଜଣାଶୁଣା ଏବଂ ଏହା ବ୍ରହ୍ମାଣ୍ଡର କିଛି ବଡ଼ ରହସ୍ୟ ଅନୁସନ୍ଧାନ କରିଚାଲିଛି, ଯେଉଁଥିରେ ପଦାର୍ଥ, ଶକ୍ତି, ସ୍ଥାନ ଏବଂ ସମୟର ପ୍ରକୃତି ଅନ୍ତର୍ଭୁକ୍ତ।

ଏହି ମାନ୍ୟତା ପାଇଁ ଖୁସି ପ୍ରକାଶ କରି ଗବେଷକମାନେ ଉଲ୍ଲେଖ କରିଛନ୍ତି ଯେ ଏହି ବୈଶିଷ୍ଟ୍ୟ ଆଇଆଇଟି ଭୁବନେଶ୍ୱରର ଗବେଷଣା ଅବଦାନର ବର୍ଦ୍ଧିତ ବିଶ୍ୱ ଦୃଶ୍ୟମାନତାକୁ ପ୍ରତିଫଳିତ କରେ ଏବଂ ଆନ୍ତର୍ଜାତୀୟ ବୈଜ୍ଞାନିକ ସହଯୋଗରେ ଭାରତୀୟ ପ୍ରତିଷ୍ଠାନଗୁଡ଼ିକ ଦ୍ୱାରା ନିର୍ବାହ କରାଯାଉଥିବା ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ ଭୂମିକାକୁ ଉଜ୍ଜ୍ୱଳ କରେ।

ଏହି ସଫଳତା ବୈଜ୍ଞାନିକ ଗବେଷଣାର ଏକ ଅଗ୍ରଣୀ କେନ୍ଦ୍ର ଭାବରେ ଆଇଆଇଟି ଭୁବନେଶ୍ୱରର ଖ୍ୟାତିକୁ ଆହୁରି ମଜବୁତ କରେ ଏବଂ ବିଶ୍ୱସ୍ତରୀୟ ଗବେଷଣା ଏବଂ ଆନ୍ତର୍ଜାତୀୟ ସହଯୋଗୀତା ମାଧ୍ୟମରେ ଜ୍ଞାନକୁ ଆଗକୁ ବଢାଇବା ପାଇଁ ଏହାର ପ୍ରତିବଦ୍ଧତାକୁ ପ୍ରଦର୍ଶନ କରେ।



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर
Indian Institute of Technology Bhubaneswar

Media/Publication	Odisha Haat		
Date	20 th March, 2026	Language	English
Headline	IIT Bhubaneswar Research Featured in CERN Courier Magazine		
Link	https://odishahaat.com/iit-bhubaneswar-research-featured-in-cern-courier-magazine/		

Bhubaneswar : In a proud moment for IIT Bhubaneswar, its 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.

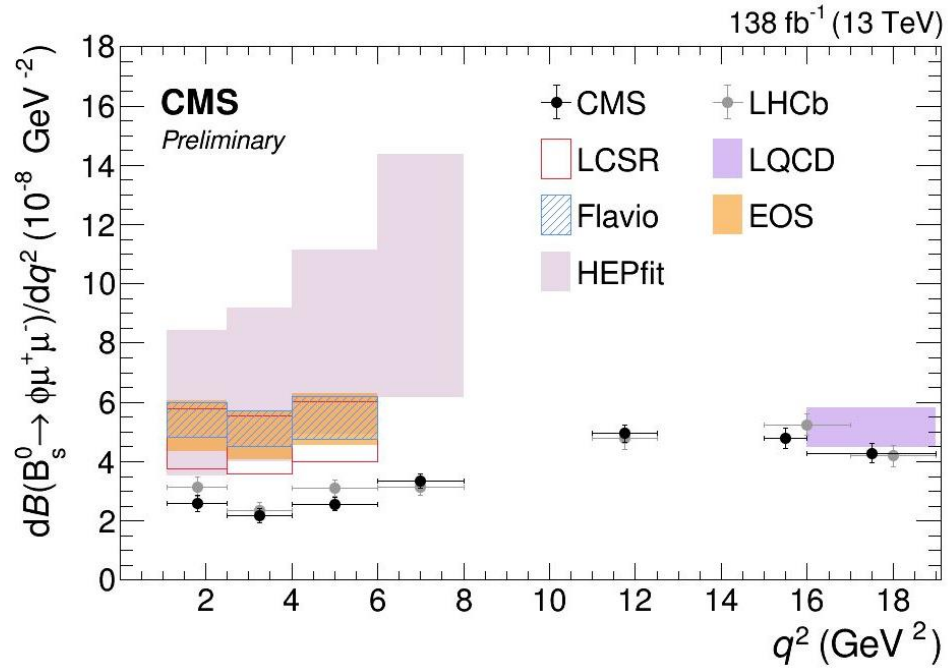
Expressing their happiness over the recognition, the researchers noted that the feature reflects the increasing global visibility of IIT Bhubaneswar’s research contributions and highlights the important role being played by Indian institutions in international scientific collaborations.

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.



भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर
Indian Institute of Technology Bhubaneswar

Media/Publication	Odisha Stand		
Date	11 th June, 2026	Language	English
Headline	IIT Bhubaneswar Research Featured in Prestigious CERN Courier Magazine		
Link	https://odishastand.com/iit-bhubaneswar-research-featured-in-prestigious-cern-courier-magazine/		



Bhubaneswar: 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.

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भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर Indian Institute of Technology Bhubaneswar

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भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर Indian Institute of Technology Bhubaneswar

Media/Publication	Ibg News		
Date	11 th June, 2026	Language	English
Headline	IIT Bhubaneswar Scientists Earn Global Recognition as CERN Courier Features Their Particle Physics Research		
Link	https://ibgnews.com/2026/06/11/iit-bhubaneswar-scientists-earn-global-recognition-as-cern-courier-features-their-particle-physics-research/		

IIT BHUBANESWAR RESEARCH
FEATURED IN PRESTIGIOUS
CERN COURIER MAGAZINE
A PROUD MOMENT FOR INDIAN SCIENCE

Research by scientists from the **School of Basic Sciences**, IIT Bhubaneswar has been featured in the latest issue of **Energy Frontiers**, a special section of the internationally renowned CERN Courier magazine.

KEY CONTRIBUTIONS FROM IIT BHUBANESWAR SCIENTISTS

- The research, conducted as part of the global CMS Collaboration at CERN's Large Hadron Collider (LHC), investigates an extremely rare decay of subatomic particles (Bs meson).
- The study reveals intriguing differences between experimental measurements and theoretical predictions. While more data and analysis are needed, such hints could point towards new physics beyond the current understanding of the universe.

HIGHLIGHTS

- IIT Bhubaneswar is an active member of the CMS Collaborations, contributing to global particle physics research.
- CERN Courier is a highly respected international publication read by scientists, educators, policymakers and science communicators worldwide.
- This recognition reflects the growing global impact of Indian institutions in cutting-edge scientific discoveries.
- The CMS experiment brings together thousands of experts worldwide and is known for accelerating the Higgs boom and exploring the deepest mysteries of the universe.

This achievement strengthens IIT Bhubaneswar's reputation as a centre of excellence in research and reinforces its commitment to advancing knowledge through world-class research and international collaborations.

Source: CERN Courier (Energy Frontiers) – May/June 2026 Issue | Paper Link: <https://cerncourier.com/wp-content/uploads/2026/06/CERNCourier2026MayJun-digitaledition.pdf>

KEY RESULTS FROM THE CMS EXPERIMENT

Plot 1: $B_s \rightarrow \mu^+ \mu^-$ (10⁻⁸ GeV⁻²)

Experiment	Value (10 ⁻⁸ GeV ⁻²)
CMS	~4.5
LHCb	~4.5
LCSR	~4.5
LOCD	~4.5
Flavia	~4.5
EOS	~4.5
HEPfit	~4.5

Plot 2: L_b^{μ}

Experiment	Value
CMS	~0.5
LHCb	~0.5
LCSR	~0.5
LOCD	~0.5
Flavia	~0.5
EOS	~0.5
HEPfit	~0.5

ABOUT THE CMS COLLABORATION

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

Bhubaneswar, June 11, 2026: Scientists from the **Indian Institute of Technology (IIT) Bhubaneswar** have received international recognition after their research was featured in the latest **Energy Frontiers** section of the globally respected **CERN Courier** magazine. The publication highlights cutting-edge developments in particle physics and accelerator science from researchers around the world.

The featured article, “**A Sharper Probe of a Rare Bs Decay**,” is based on research conducted within the **Compact Muon Solenoid (CMS)** experiment at **CERN’s Large Hadron Collider (LHC)**, one of the most sophisticated scientific facilities ever built for exploring the fundamental nature of matter.

The study includes significant contributions from IIT Bhubaneswar researchers **Dr. Seema Bahinipati**, **Mr. Rishabh Raturi**, and **Dr. Samarendra Nayak**, who are members of the international CMS Collaboration. Their work focuses on the investigation of an extremely rare decay process involving subatomic particles, an area that could provide valuable insights into the underlying principles governing the universe.



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According to the research, certain experimental observations do not perfectly align with existing theoretical expectations. While scientists emphasize that additional investigations are required, such deviations are scientifically important because they may indicate phenomena that extend beyond the current Standard Model of particle physics.

IIT Bhubaneswar has been actively contributing to the CMS Collaboration through its experimental particle physics programme. Researchers from the institute analyze data generated by collisions inside the Large Hadron Collider, participating in global efforts to answer some of the most fundamental questions in modern science.

Being featured in **CERN Courier** represents a significant milestone for the institute. The magazine is regarded as one of the leading international publications covering particle physics and accelerator research, with a readership that includes scientists, educators, policymakers, and science communicators worldwide. The recognition reflects the growing international visibility of research being carried out at IIT Bhubaneswar.

The CMS experiment itself is among CERN's flagship scientific initiatives, bringing together thousands of scientists, engineers, technicians, and students from institutions across the globe. The collaboration gained worldwide attention through its role in the discovery of the Higgs boson and continues to investigate the mysteries surrounding matter, energy, space, and time.

The researchers expressed their satisfaction over the feature, noting that it showcases the increasing contribution of Indian institutions to major international scientific collaborations. They believe such recognition will further encourage high-quality research and strengthen India's presence in frontier areas of physics.

The achievement also reinforces IIT Bhubaneswar's standing as an emerging centre of excellence in advanced scientific research and demonstrates its commitment to fostering world-class innovation through international partnerships.

About the CMS Collaboration

The **Compact Muon Solenoid (CMS)** is one of the world's largest scientific collaborations and operates as a flagship experiment at CERN's Large Hadron Collider. It unites thousands of researchers, engineers, and technical experts from universities and laboratories worldwide to study the fundamental constituents of the universe and to deepen humanity's understanding of the laws of nature.



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Media/Publication	United News of India		
Date	11 th June, 2026	Language	English
Headline	IIT Bhubaneswar scientists' research on rare subatomic particle behavior featured in CERN Courier		
Link	https://www.uniindia.com/~iit-bhubaneswar-scientists-research-on-rare-subatomic-particle-behaviour-featured-in-cern-courier/States/news/3872826.html		

IIT Bhubaneswar scientists' research on rare subatomic particle behaviour featured in CERN Courier

Bhubaneswar, June 11 (UNI) Research conducted by scientists from the School of Basic Sciences at the Indian Institute of Technology (IIT) Bhubaneswar has earned international recognition after being featured in the latest edition of Energy Frontiers, a special section of the globally acclaimed CERN Courier magazine.

The article, titled "A Sharper Probe of a Rare Bs Decay," highlights significant findings from the Compact Muon Solenoid (CMS) experiment at CERN's Large Hadron Collider (LHC), one of the world's most advanced scientific research facilities.

The featured study was carried out under the CMS Collaboration at CERN, with IIT Bhubaneswar researchers Dr. Seema Bahinipati, Rishabh Raturi and Dr. Samarendra Nayak making notable contributions.

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Tags: #IIT Bhubaneswar scientists' research on rare subatomic particle behaviour featured in CERN Courier



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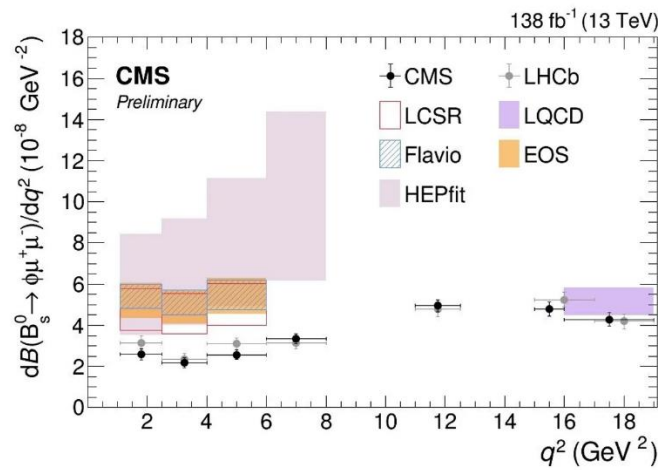
Media/Publication	India Education diary		
Date	12 th June, 2026	Language	Odia
Headline	IIT Bhubaneswar Research Featured in Prestigious CERN Courier Magazine		
Link	https://indiaeducationdiary.in/iit-bhubaneswar-research-featured-in-prestigious-cern-courier-magazine/		

Bhubaneswar: 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.



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Media/Publication	OTV		
Date	12 th June, 2026	Language	English
Headline	IIT Bhubaneswar research earns place in prestigious CERN Courier		
Link	https://odishatv.in/odisha/iit-bhubaneswar-research-earns-place-in-prestigious-cern-courier-12029510		



[Research](#) carried out by scientists from the School of Basic Sciences at [IITBhubaneswar](#) has received international recognition after being featured in the latest edition of Energy Frontiers, a special section of CERN Courier, one of the world's leading publications on particle physics and accelerator [science](#).