



## ONE DAY WORKSHOP

ON

## BIOINFORMATICS, BIOTECHNOLOGY AND PHYSICS EXPERIMENTS

Organized by

**St. Bede's College Shimla**

(NAAC Re-Accredited 'A+' College)

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**JAYPEE UNIVERSITY OF INFORMATION  
TECHNOLOGY, WAKNAGHAT**

Date : 28<sup>th</sup> February, 2019

Time : (10 A.M –4.00 P.M)

### Patron

Dr. Sr. Beena John  
Principal, St. Bede's College Shimla

### Convener

Dr. Shramja Munjal  
Associate Professor & Head –  
Department of Botany  
St. Bede's College Shimla  
(Mob)9418477011  
E.mail : shramja@gmail.com

### Convener

Dr. Sudhir Kumar  
Professor & Head - Department of  
Biotechnology and Bioinformatics  
JUIT, Waknaghat  
(Mob) 9805627899  
E.mail : sudhir.syal@juit.ac.in

### Target Audience for the Seminar

- ❖ Undergraduate science students
- ❖ Postgraduate science students
- ❖ Any body who loves science

***NOTE: No registration fee will be charged***

## One Day Workshop on 'National Science' Day 28-02-2019 at St. Bede's College, Shimla

On 28 February 2019, 'National Science Day' with the theme '**Science for the People and the People for Science**' – a One Day Workshop was organized by St. Bede's College Shimla. The workshop was conducted by the resource persons from Departments' of - Biotechnology & Bioinformatics and Physics & Materials Science, JUIT, Waknaghat.

About 150 students of B.Sc (medical and non-medical), and M.Sc. (Microbiology and Botany) streams participated in the workshop. The main objective of the workshop was to educate and motivate students for exploration of different arenas in science, so that they may pursue a research oriented career in area of their interest; along with showcasing the strength of Japye University in research and academics.

The workshop started with the welcome note of Dr. Shramja munjal and followed by the lecture of Dr Tiratha Raj Singh, (Associate professor, BTBI) about Bioinformatics and its application in medical sciences along with future aspects in India and also in the University. For students from medical and non-medical streams, separate sessions were conducted thereafter. He also provided information regarding the courses and different programmes running and will be started in the coming session in the University.

For students from non-medical stream a talk on the topic 'Recent Trends in Nanotechnology' was delivered by Dr. Ragini Raj Singh (Assistant Professor, PMS) on new aspects of Nanoscience. Dr. Sanjiv Tiwari (Assistant Professor, PMS) delivered a talk on 'School Level Physics' with the theme 'Science for people and the people for science'. Dr. Pankaj Sharma (Associate professor, PMS) interacted with the student in the lab session and answered the scientific queries of students related to basic principles of physics.

For students from medical stream, students were divided into four groups (30 each) and each group sent to different labs for practical demonstrations and hands-on-experience conducted by faculty members and PhD scholars from JUIT. Prof. Sudhir Kumar gave demonstration about the working model of biogas reactor and KOH string test. Dr Rahul Shrivastava (Associate Professor, BTBI) gave demonstrations on diagnostic methods with concepts in immunology; Dr Jata Shankar (Associate Professor, BTBI) demonstrated about molecular techniques used in science research, Dr Hemant Sood (Associate Professor, BTBI) demonstrated and briefed about plant tissue culture techniques for endangered medicinal plants along with and secondary metabolites production for their knowledge enrichment.

The event was arranged by science fraternity from St. Bede's college in a perfect manner for the successful completion of the event. St. Bede's College, Shimla, administration, Coordinators from St. Bede's College, Shimla, JUIT administration, staff, research scholars, faculty members of the Department are deeply acknowledged for their unconditional support. Overall the event was fruitful and interactive for everyone who attended it whether students or teachers. (Schedule and news paper clip appended).

**Schedule of One Day Workshop - St. Bede's College Shimla - 28 Feb. 2019**

*Conducted by*

**Department of Biotechnology & Bioinformatics and Department of Physics and Materials Science JUIT,  
Waknaghat**

<b>Date &amp; Time</b> <b>28.02.2019</b>	<b>Name of Resource Persons, Staff members and PhD Scholars</b>	<b>Demonstration/ Practical session</b>
<b>9.30 – 10.00 AM</b>	St. Bede's and JUIT Team	Inauguration and Overview about Workshop
<b>10.00-10:40 AM</b> <b>For Medical and Non-medical Students</b>	Dr. Tiratha Raj Singh – Inaugural Lecture Rohit ( Ph.D. Scholar)	Bioinformatics: Applications in medical science like Alzheimer's disease and cancer.
<b>10.50 – 1.00 AM</b> <b>For Non- Medical Students</b>	Dr. Ragini Raj Singh & Dr. Sanjiv Tiwari, Dr. Pankaj Sharma, Ravendra Kumar Tiwari - Lab. technician (Physics and Material Science)	Hands on experiments on magnetism, optics and recent trends in nanotechnology
<b>Each batch will be 30-35 students (4-5 batches)</b>  <b>10:50-1:00 AM</b>  <b>For Medical Students</b>	<b>Parallel Demonstration /Practical and Explanatory sessions (Biotechnology)</b>	
	Dr Sudhir Kumar, Ms Pooja (Ph.D. Scholar), Mr. Karam Das	Practical Demonstration of Biogas Reactor: Its fabrication, working and utility, KOH string test
	Dr. Rahul Shrivastava, Ayushi (Ph.D. Scholar), Deepak (Ph.D. Scholar)	Antigen and Antibody based diagnostic techniques
	Dr. Jata Shankar, Ms. Sonia (Ph.D. Scholar)	Molecular Biology: Demonstration on PCR, Restriction Enzymes, Gel electrophoresis
	Dr. Hemant Sood, Rolika Gupta (Ph.D. Scholar)	Plant Tissue Culture: Demonstration of techniques for carrying out micropropagation of ornamental and medicinal plants
<b>1:00- 2:00PM</b>	<b>Lunch Break</b>	
<b>2:00-3:30PM</b> <b>For Medical Students</b>	<b>Parallel Demonstration /Practical and Explanatory sessions (Biotechnology)</b>	
<b>3:30-4:00 PM</b>	<b>Feedback from the participants</b>	





# सेंट बीड्ज में जैव सूचना विज्ञान पर व्याख्यान

दिव्य हिमाचल ब्यूरो-सोलन

राष्ट्रीय विज्ञान दिवस के अवसर पर शिमला के सेंट बीड्ज कालेज में जेपी विश्वविद्यालय के सूचना प्रौद्योगिकी, वाकनाघाट, सोलन से एक टीम द्वारा कार्यशाला का आयोजन किया गया था। टीम का नेतृत्व प्रो. सुधीर कुमार, एचओडी, जैव प्रौद्योगिकी विभाग और जैव सूचना विज्ञान विभाग ने किया। इसमें डा. तीरथ राज सिंह, डा. राहुल श्रीवास्तव, डा. हेमंत सूद और बीटी और बीआई विभाग के डा. जटा शंकर शामिल हैं। भौतिकी विभाग से डा. पंकज शर्मा, डा. रागिनी राज सिंह और डा. संजीव तिवारी भी मौजूद रहे। कार्यक्रम की शुरुआत डा. तीरथ

राज सिंह द्वारा मेडिकल और गैर-मेडिकल छात्रों के लिए जैव सूचना विज्ञान पर एक व्याख्यान के साथ हुई। डा. रागिनी राज सिंह ने नैनो टेक्नोलॉजी पर बात की जबकि डा. संजीव तिवारी ने दैनिक जीवन में बुनियादी विज्ञान समस्याओं के बारे में चर्चा की। प्रयोगशाला के प्रदर्शनों को भौतिकी और जैव प्रौद्योगिकी प्रयोगों पर अन्य संकाय सदस्यों द्वारा दिया गया था। गौर हो कि जेपी यूनिवर्सिटी हिमाचल के छात्रों को विकासशील परिदृश्य में पर्याप्त रूप से सक्षम बनाने के लिए वैज्ञानिक और तकनीकी नवाचारों और नवीनतम अपडेट के प्रसार के लिए स्कूल और कालेज स्तर के छात्रों के लिए कई ऐसे आयोजन कर रहा है।

