

**14<sup>th</sup>** JK  
**SCIENCE CONGRESS**  
**2019**



A NATIONAL EVENT ON THE THEME

# **SCIENCE AND TECHNOLOGY FOR A SUSTAINABLE FUTURE**

**20<sup>th</sup>-22<sup>nd</sup> December 2019**

Organised by:

**UNIVERSITY OF JAMMU**

Prof. Manoj K. Dhar, Vice-Chancellor  
Patron

Prof. Naresh Padha, Dean Science  
Organising Secretary

Prof. Roopma Gandotra, Dean Life Science  
Co-Organising Secretary



## **Announcement for call of papers and participation**

### **Sponsors :**

- ☆ J&K STATE SCIENCE, TECHNOLOGY & INNOVATION COUNCIL
- ☆ UNIVERSITY OF JAMMU
- ☆ RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA 2.0)
- ☆ PROMOTION OF UNIVERSITY RESEARCH AND SCIENTIFIC EXCELLENCE (PURSE), DST, GOI



Website: [www.14jksc.in](http://www.14jksc.in) | Email: [jkscju14@gmail.com](mailto:jkscju14@gmail.com)

RUSA 2.0

## **FOCAL THEME:**

### **Science and Technology For A Sustainable Future**

#### **Background of the 14<sup>th</sup> session of JK Science Congress:**

When our country got freedom, we had limited infrastructural facilities to conduct the state –of – the art research in Science and Technology. But in spite of that Indian Scientists and Technologists made breakthroughs in various fields for the growth and betterment of the nation. Agricultural scientists made invaluable progress in crop production, which ultimately led to the Green Revolution. Simultaneously, we ushered in the white revolution, making our country the largest producer of milk. Besides, Indian scientists and technologists have achieved great success in space research. Within few years, India became self- sufficient in space research, which can be substantiated by wholly indigenous successful projects like Chandrayan to explore Moon and Mangalayan to explore Mars. In 2017, India broke the record by launching 104 satellites from a single rocket. Additionally, Indian scientists have also shown their competence in nuclear research. Infant mortality has gone down almost half of what it was 70 years ago. Average life expectancy has gone up by more than 30 years. The pharmaceutical industry of India has flourished and is ranked fourth in the world. Today, Indians are dictating terms in global IT industry.

In spite of all the success stories, we are at the doorsteps of several formidable challenges. Only innovative and better translational scientific research can rescue us from the current concerns. Studies have reported that, by 2030, India's demand for food grains would be around 300 million tonnes, which is an increase of about 27% since 2010. Initiatives such as the ones undertaken by the Government of India through the Digital India programme are uplifting the current state of farming. However, significant breakthroughs in the field of Biotechnology and Agricultural Sciences are still required to achieve India's full potential. India still lacks in other manufacturing industries, a problem that needs our immediate attention. A significant technological intervention will be the key to realize this dream. Most importantly, innovative and out of box measures are required to be undertaken to come up with, smarter and cheaper technology that will be able to reach every Indian. At the 14<sup>th</sup> session of JK Science Congress, scientists and technologists from all over India, which include eminent Scientists and senior researchers, will discuss different issues related to growth and progress under the focal theme.

All of us are looking forward to a brighter future for our nation with contribution of the scientists and technologists and the holding of the present session of JK Science Congress is a step towards that direction .

We are inspired by the fact that 2019 is being celebrated as birth centenary of three great Indian Scientists, Dr. S N Bose, Meghand Saha and Mahalanobis who made great contributions in the field of science inspite of limited research & infrastructural facilities.

## THRUST AREAS

### Scope of areas

- Disaster Management with special reference to Floods and Earth Quakes.
- Green Renewable Energy and Sustainable Energy.
- Biodiversity: Assessment and conservation.
- Climate Changes and its impact.
- Food Security and livelihood.
- Natural Resource Management.
- Cyber Security and Crime.
- Innovation and Entrepreneurship.

### Disciplines

- Agriculture, Forests and other Vegetation.
- Biological Sciences.
- Chemical and Physical Sciences.
- Earth and Environmental Sciences.
- Medical and Pharmaceutical Sciences.
- Engineering Science & Technology.

## NATIONAL ADVISORY COMMITTEE

**Prof. Manoj K. Dhar**, Vice-Chancellor, University of Jammu , (Chairman)

**Prof. Talat Ahmed**, Vice-Chancellor, University of Kashmir

**Prof. Ashok Aima**, Vice Chancellor, Central University of Jammu

**Prof. Mehraj Ud Din Mir**, Vice Chancellor, Central University of Kashmir

**Prof. Anju Bhasin**, Vice-Chancellor, Cluster University, Jammu

**Prof. Sheikh Javid Ahmed**, Vice-Chancellor, Cluster University, Srinagar

**Mr. C. Phunsog**, IAS (Retd.) Vice Chancellor, University of Ladakh

**Prof. Ravindra K. Sinha**, Vice Chancellor, Shri Mata Vaishno Devi University, Katra

**Prof. Javed Musarrat**, Vice-Chancellor, Baba Ghulam Shah Badshah University, Rajouri

**Prof. Mushtaq A. Siddiqi** Vice-Chancellor, Islamic University of Science and Technology Awantipora, Kashmir

**Prof. RNK Bamzai**, JNU, New Delhi

**Prof. Ashok Ganduly**, IIT Delhi, New Delhi

**Prof. R.P. Tandon**, Delhi University, Delhi

**Dr. Mushtaq Ahmed Bhat**, Joint Director, J&KST&IC

**Prof. Keshav Sharma**, Dean Academic Affairs, University of Jammu

**Prof. Rajni Dhingra**, Dean, Research Studies, University of Jammu

**Prof. Naresh Padha**, Dean Faculty of Sciences, University of Jammu (**Organizing Secretary**)

**Prof. Roopma Gandotra**, Dean Faculty of Life Sciences, University of Jammu (Co-Organizing Secretary)

## ORGANIZING COMMITTEE

- Organizing Secretary (Convener)
- Co-organizing Secretary
- Dean, Faculty of Mathematical Sciences
- Dean, Medical Sciences
- Dean, Engineering Sciences
- Heads of all the Science Departments
- Registrar, University of Jammu
- Controller of Examinations
- Director, Colleges Development Council
- Dean Student Welfare
- Convener of the Committees
- Joint Director, J&K State of Science Technology & Innovation Council

## NATURE OF EVENTS:

Keynote lectures from renowned experts on the theme of Science Congress, Plenary Talks from eminent Researchers/ Academicians and Scientists of national and international repute on thrust areas of the Congress.

## ACTIVITIES:

Multiple plenary sessions on different thrust areas of the Science Congress will be held on the days of the 14<sup>th</sup> JKSC-2019. A number of parallel technical sessions in different disciplines of science have been planned. A number of distinguished scientists / science policy makers and academicians shall be invited to interact with the participants of 14<sup>th</sup> Science Congress. The scientists and technocrats from industries will also be invited to address the session with an aim to develop strong industry interface with the academia. A focus will be given to encourage the young scientists and researchers from different institutions / universities to participate in the Congress. There will be awards for best oral & poster presentations.

## IMPORTANT DATES:

7 <sup>th</sup> December 2019	Last date for submission of Abstracts
14 <sup>th</sup> December 2019	Notification of acceptance of Abstracts
20 <sup>th</sup> -22 <sup>nd</sup> December 2019	Days of organization of the Event

## REGISTRATION:

Registration for the 14<sup>th</sup> JK Science Congress for paper presentation/ participation shall be considered through online mode only. Important dates and other instructions are available on the official website of the 14<sup>th</sup> JK Science Congress Website: [www.14jksc.in](http://www.14jksc.in).

These details will also be available on the University of Jammu website: [www.jammuuniversity.in](http://www.jammuuniversity.in)

## REGISTRATION FEE:

Category	Amount (Rs.)	
	Upto 16 <sup>th</sup> Dec. 2019	Onspot
Industry	4,000/-	5,000/-
Research & Academic Institutions	2,000/-	2,200/-
Research Scholars	1,000/-	1,200/-
Students (PG/UG)	500/-	600/-
Accompanying Person	1,000/- each	1,200/- each

**CALL FOR PAPERS:** The abstracts for paper presentation (Oral/Poster) on the identified topics are invited online on the 14<sup>th</sup> JK Science Congress website: [www.14jksc.in](http://www.14jksc.in). The length of the abstracts should not exceed beyond 250 words. The uploading option shall close on 7<sup>th</sup> December 2019 upto 12 AM (MidNight).

### **ACCOMMODATION:**

The outstation participants shall stay in hotels/ guest houses of nearby institutions/universities and Dhams for which advance booking is to be made. The tentative rates for the stay are given as under:

<b>Shared Accommodation</b>	<b>Rs. 750/- per night</b>
<b>Economy Hotels</b>	<b>Rs. 1500 to 2000/- per night</b>
<b>Deluxe 3 star hotels</b>	<b>Rs 3000 – 4000/- per night</b>

### **ABOUT JAMMU**

Jammu, also known as “City of Temples” is situated at foothills of Shivalik, besides the river Tawi at an altitude of 1030 ft., from the sea level. Jammu has a rich cultural background and has the history of being a place inhabited by peace loving people. History stands testimony to the episode that Lion & Goat were seen drinking water together by Raja Jambu Lochan after whose name the city has been named Jammu. Presently, spreading from Ramnagar hills on one side to industrial town of Bari Brahmamana on the other, Jammu has a population of well over a million. Linked with rail, road and air, it has emerged as a big trading centre in the recent years. The view of the dawn and dusk of this sacred city is simply enchanting.

### **PLACES OF INTEREST**

#### **BAHU FORT**

The Bahu Fort is believed to be 3000 years old that hosts Mata Kali temple inside Bagh-e-Bahu and is one of the most imposing attractions in the city. It gives commanding grand view of the city. There is an Aquarium at this place and is considered the largest in Asia.



#### **AMAR MAHAL**

The Amar Mahal is the most majestic and impressive building in Jammu. It is French style Redstone Palace, more than 100 years old and is a must see. It was built by Raja Amar Singh in late 1890 and was 'the' residence of Maharani Tara Devi. It has turned into a



museum now with art and antique collection.

## **MATA VAISHNO DEVI**

Pilgrimage of Mata Vaishno Devi is said to one the holiest pilgrims in world, Shri Mata Vaishno Devi resides in a cave which is situated in the three peaked mountain called Trikoot. Lakhs of devotees pay homage to Mata Vaishno devi Ji every year. The number of devotees visiting the shrine exceed 5 million every year from within and out side the country.



## **PATNITOP**

Patnitop or Patni Top, is a hill top tourist location in Udhampur district, on the National Highway, 112 km from Jammu. Situated on a plateau in the Shiwalik belt of the Himalayas, Patnitop sits at an altitude 2024 metres. The river Chenab flows in proximity to this location.



## **MANSAR LAKE**

The Mansar Lake, situated 60 km away from Jammu is a beautiful lake fringed by forest-covered hills. Boating facilities are available here. Another attraction here is the Surinsar Mansar wildlife, named after the two lakes on each corner of it. The sanctuary is spread over an area of 98 sq km and is home to species like the goral, wild boar, barking deer, leopard and a multitude of birds like, black partridge, red jungle fowl, peafowl, gray partridge, green pigeon, blue rock pigeon, Rufus turtle dove etc. Besides these, the forest area also houses some rare species of trees and orchids.



## **SURINSAR LAKE**

This beautiful Surinsar lake, situated about 42 km from Jammu, is bordered by hills and dense forests. The lake is a great picturesque spot in summer when the surface is covered with countless lotus flower. The hills in the backdrop of the lake separate it from the urban areas and provide a calm and divine feeling.



## UNIVERSITY OF JAMMU: A PROFILE

University of Jammu is one of the premier teaching and research institutions of the country. The University has earned recognition from various National and International agencies. The University was accredited and assessed by NAAC in 2016 with A+ grade (CGPA 3.51) (Cycle -III), thus joining the elite group of institutions in the country, which have attained A+ grade in Cycle III. Under the National Institutional Ranking Framework (NIRF) of the MHRD, the University of Jammu attained 74th rank in 2019. University of Jammu is the only University in the Jammu and Kashmir State to have been granted full autonomy (Category 1) under the UGC (Categorization of Universities for grant of Graded Autonomy Regulations 2017).

Apart from its main campus in Jammu, the University expanded its jurisdiction geographically to take higher education to the doorsteps of people living in remote and far flung areas of Jammu region. The University has eleven other campuses, out of which seven campuses located at Kathua, Bhaderwah, Poonch, Udhampur, Ramnagar, Kishtwar and Reasi have been made functional. Teaching-learning and research are being carried out by thirty seven departments, twelve centres, one hundred forty three colleges and the Directorate of Distance Education awarding nineteen undergraduate programmes, forty nine post graduate programmes, ten diplomas, Ph.Ds in thirty seven disciplines and M.Phils in twenty six disciplines.

The main new campus at Bahu Wali Rakh with an area of 118.78 acres houses the Teaching Departments, Centres, Administration Block, Examination Wing, College Development Council, Department of Students Welfare, Directorate of Distance Education, Central Library, Computer Centre, Health Centre, Guest House, Post Office, J&K Bank, Book shop, Transit accommodation, Gymnasium, Hostels, Cafeteria and Canteens, Residential quarters and many other facilities. The second campus of the University (the old campus), located at a distance of 4 km from the main campus, is spread over 10.5 acres and currently houses a hostel for boys and residential quarters for teaching and non-teaching employees.

Individual departments of the University have been recognized Nationally as well as Internationally by funding agencies such as Department of Science and Technology (DST); Department of Biotechnology (DBT); DAAD, Germany; CERN Geneva; FERMILAB, USA; UGC; CSIR; ICMR, ICSSR, to name a few.

Based on the University's National Assessment and Accreditation Council (NAAC) grade as well as autonomous status, the University has been granted a special grant of ₹100 crores under RUSA-2.0. Various curriculum reforms, research and development facilities, campus development & upkeep and promotion of student centric activities have been planned under RUSA. University has also recently established a Business Incubation & Innovation Centre, Industry and Academia Partnership Centre and a Skill Development Centre to promote entrepreneurial spirit amongst the students.

