

*First Circular*

**43<sup>rd</sup> INCA International Congress  
on  
Emerging Trends in Digital Cartography for  
Sustainable Ecosystems and  
Geospatial Economy**

**06-08 November 2023**

**Jodhpur**



**Organized by**

**Indian National Cartographic Association (INCA)**



**Hosted by**

**Regional Remote Sensing Centre-West  
National Remote Sensing Centre ( NRSC), ISRO  
Jodhpur – 342 005**

## 43<sup>rd</sup> INCA International Congress – 2023

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### Local Organising Committee

Patron	: Dr. Prakash Chauhan, NRSC/ISRO
Chairman	: Dr. S. K. Srivastav, NRSC/ISRO
Organising Secretary	: Dr. A. K. Bera, RRSC-West, NRSC/ISRO
Co-Organising Secretary	: Dr. P. C. Moharana, ICAR-CAZRI
Treasurer	: Shri Sagar S. Salunkhe, RRSC-West, NRSC/ISRO
Editor	: Dr. Dandabathula Giribabu, RRSC-West, NRSC/ISRO
Event Secretariat Focal Point	: Shri Gaurav Kumar, RRSC-West, NRSC/ISRO

### Members Organising Committee

Commented [HC2]: May also take from IIT-Jodhpur

Dr. Rakesh Paliwal, RRSC-West, NRSC/ISRO  
Shri. Ashish Kumar Jain, RRSC-West, NRSC/ISRO  
Shri. Hansraj Meena, RRSC-West  
Shri Rakesh, RRSC-West, NRSC/ISRO  
Shri Manish Kumar Verma, RRSC-West, NRSC/ISRO  
Shri Shashikant Sharma, RRSC-West, NRSC/ISRO  
Shri Shambhu Singh Tak, RRSC-West, NRSC/ISRO  
Engr. Gautam Kumar, CMG, NRSC/ISRO  
Shri Om Prakash Sharma, RRSC-West, NRSC/ISRO  
Shri Anil Kumar Ojha, RRSC-West, NRSC/ISRO  
Dr. Balak Ram, ex ICAR-CAZRI  
Shri Kailash Gupta, INCA, Jodhpur  
Dr. Arjun Meena, JNVU  
Dr. Rajeev Jain, SRSAC  
Dr. Biri Singh, ASI, Jodhpur  
Prof. Seema Jalan, MLSU, Udaipur  
Dr. Suparn Pathak, RRSC-East, NRSC/ISRO  
Dr. Sameer Saran, RRSC-North, NRSC/ISRO  
Dr. P. Satyanarayana, RSAA, NRSC/ISRO  
Shri. Hasan Mahammad Basha S. K., NRSC/ISRO

Email: [info@43inca.org](mailto:info@43inca.org)

Congress website: <https://www.43inca.org>

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## Invitation

Dear Reader,

With great pleasure, we present to you the first announcement of the 43<sup>rd</sup> INCA International Congress on "*Emerging Trends in Digital Cartography for Sustainable Ecosystems and Geospatial Economy*," going to be held during **06-08 November 2023 at Jodhpur, Rajasthan, India**. The event is being organised by Indian National Cartographic Association (INCA) and hosted by National Remote Sensing Centre (NRSC), ISRO, at Regional Remote Sensing Centre – West (RRSC-West), Jodhpur.

This announcement highlights the background, context and the aim of the congress, main theme & sub-themes, and invites researchers, academicians, students, working professionals, representatives from government agencies & non-profit organisations, technology companies, start-ups and entrepreneurs who work and have interest in the field of digital cartography and geospatial technologies and their applications in diverse disciplines. Further, all geospatial companies and start-ups dealing with geospatial products and services are most welcome to showcase their products to this professional gathering.

We are sure that the congress will offer truly inspiring, state-of-art 'learn from each other's experiences' and partnership on the theme which is important for many ongoing development programmes in the present scenario.

## The Congress

The INCA, established in 1979, is a non-profit making professional body. It is an inter-disciplinary institution originally between Geographers and Cartographers which is now shared by a host of premier public and private bodies. Today, Cartography along with Geoinformatics is a multifaceted and highly complex domain involving several disciplines to enhance the understanding, creation, analysis, and use of maps as well as geographic information in order to support effective decision making and, thus, improving the quality of life. The aims of the association are as follows:

- To foster cartographic research in the country.
- To co-operate with professional organisations of cognate disciplines and to promote interaction within an inter-disciplinary frame.
- To co-operate with International organisations with similar objectives.
- To foster co-operation between government and quasi-government organisations, research institutions engaged in cartographic activities and their applications.
- To hold an annual cartographic congress at the national or international level.
- To take such measures as may help secure cartography its legitimate place in national life and enhance a sense of national responsibility and professional efficacy among all the professionals and academic people engaged in cartographic activities in its broad sense.

More information about INCA can be found at <http://www.incaindia.org/>

## The Host Institution

*National Remote Sensing Centre (NRSC)*, a key functionary of Indian Space Research Organisation (ISRO), is striving to realize the Indian Space Vision through Earth Observation. It is responsible for the ground segment of Remote Sensing Programme through satellite data acquisition, archival, processing, dissemination, remote sensing applications, training and capacity building. It also

provides aerial services in the civilian sector for the country. NRSC has five Regional Centres located at Bangalore, Nagpur, Kolkata, New Delhi and Jodhpur to address region/area specific remote sensing application needs. NRSC is continuously exploring the practical use of remote sensing for societal applications and disaster management through multilevel initiatives, development of value-added data services and remote sensing applications.

*Regional Remote Sensing Centre-West (RRSC-West), Jodhpur* is one of the regional centres of NRSC. It was established in 1987 under the aegis of National Natural Resources Management System (NNRMS) of ISRO to cater to the needs of different user agencies of North-West India. The centre is acting as a hub of space technology applications in the region since last three and half decades, with its current focus on issues related to sustainable arid ecosystems.

#### Focal Theme and Sub-Themes

The main theme identified for 43<sup>rd</sup> INCA International Congress is "Emerging Trends in Digital Cartography for Sustainable Ecosystems and Geospatial Economy." The discussions of the congress will be divided into the following sub-themes:

- Advances in cartography, geospatial technology and thematic mapping for management of natural resources and smart governance;
- Geospatial technologies for fostering sustainable agriculture, food security and green economies;
- Harnessing geospatial technologies for sustainable water resources management;
- Geospatial technologies for environment and energy security;
- Geospatial technologies for urban studies and infrastructure planning & development;
- Geospatial technologies for building disaster resilience and emergency management;
- Hydrographic surveys and geospatial technologies for coastal zone management and oceanography;
- Drone/UAV based novel applications for sustainable economies;
- Emerging trends in AI/ML for cartography and geospatial applications;
- New geospatial and space policies for enhancing entrepreneurship and geospatial economy.

#### Call for Papers

Original research papers/case-studies related to the above sub-themes are invited for presentations. Abstracts not exceeding 300 words may be submitted online through congress website <https://www.43inca.org>.

Abstract must be submitted by **7<sup>th</sup> August 2023**. The abstract could include a footnote specifying the sub-theme(s) that the paper is intended to be evaluated for. Authors will be duly intimated regarding acceptance and mode of presentation of paper (oral/poster) by **31<sup>st</sup> August 2023**. Full paper not exceeding 10 pages in prescribed format must be submitted by **30<sup>th</sup> September 2023**.

Besides technical (oral) sessions, there will be poster presentations, Todarmal lecture, Prof. S.P Chatterjee memorial lecture, a panel discussion, and a special session for industry representatives.

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### Important Dates

Last date for submission of abstract	<b>7<sup>th</sup> August 2023</b>
Acceptance of abstract will be intimated by	<b>31<sup>st</sup> August 2023</b>
Last date for submission of full paper	<b>30<sup>th</sup> September 2023</b>
Payment of registration fee	<b>30<sup>th</sup> September 2023</b>
E-Mail address for query, if any	<b>info@43inca.org</b>

### Contact Persons

<b>Dr. A. K. Bera, Organising Secretary</b>	<b>+91 291 2796395</b>
<b>Dr. P. C. Moharana, Co-Organising Secretary</b>	<b>+91 291 2786498</b>
<b>Shri. Gaurav Kumar, Focal Point for Event Secretariat</b>	<b>+91 291 2796400</b>

### Best Paper Awards

Six best papers presented during the 43<sup>rd</sup> INCA International Congress will be recognised and suitably rewarded. One best poster presentation will also be selected for award.

### Registration

Interested participants are requested to register well in advance online (<https://www.43inca.org>) by **30<sup>th</sup> September 2023**. The registration fee has to be paid online through above website.

### Registration Fees

Participant	Indian Delegates	Foreign Delegates	Indian Delegates	Foreign Delegates
	<i>Registration by 30<sup>th</sup> September 2023</i>		<i>Registration after 30<sup>th</sup> September 2023</i>	
Life Member	Rs.2500+18% GST= <b>Rs.2950</b>	US\$ 125	Rs.3000 +18% GST= <b>Rs.3540</b>	US\$ 175
Other Delegates	Rs.3000+18% GST= <b>Rs.3540</b>	US\$ 125	Rs.3500+18% GST= <b>Rs.4130</b>	US\$ 175
*Accompanying Person	Rs.2000+18% GST= <b>Rs.2360</b>	US\$ 100	Rs.2500+18% GST= <b>Rs.2950</b>	US\$ 100
Research Fellow/ Students	Rs.1500+18% GST= <b>Rs.1770</b>	US\$ 100	Rs.2000+18% GST= <b>Rs.2360</b>	US\$ 100

*\*No conference kit for accompanying person*

Registration fee includes conference kit, lunch, snacks and tea served during the sessions. Student delegates those who are presenting papers as an author could avail above discounted registration rate. Accompanying registrants will be entitled to participate in all technical and keynote sessions

and catering on conference days. However, they will be required to submit authorisation from the concerned Department of University/ College/ Organisation stating their bonafide status and that they are not employed.

#### **Exhibition**

An exhibition of geospatial products, services and equipment for cartographic surveying, remote sensing, GIS, GPS, Drones/UAV, etc. will be organised during the congress, to encourage interested companies, start-ups and governmental/ non-governmental organisations, scientific/ professional societies to showcase their products and services. This will be of immense benefit to the cartographic and geospatial community. The exhibition stalls would be allotted on first-come-first-serve basis. As there is a limited space, interested organisations are requested to book their exhibition space well in advance to avoid disappointment at the last minute. Stall size of **3m X 3m** will be available. The charges for all days of the Congress (06-08 November 2023) are as follows:

<b>Stall Size</b>	<b>Cost (Rs.) excluding 18% GST</b>
3m X 3m (one stall)	1,00,000/-
6m X 3m (two stalls)	1,75,00/-
9m X 3m (three stalls)	2,50,00/-

The booking form is to be filled online with requisite payment online by mentioning the details. For any clarification, please contact conference secretariat. The booking request for exhibition stalls shall not be confirmed without payment.

#### **Cultural Evening**

Cultural evening befitting the occasion to provide a glimpse of the vibrant and diverse cultural heritage of Rajasthan will be organised.

#### **Souvenir**

To commemorate the occasion of the 43<sup>rd</sup> INCA International Congress, a Souvenir will be brought out and released at the inaugural function by the Chief Guest. It will contain the paper abstracts and advertisements with coloured and black & white pages. The rates for publishing the advertisements in the Souvenir (excluding 18% GST) are as under:-

- **Back Cover (Colour)** : **Rs.1,50,000**
- **Front/Back Inner Cover (Colour)** : **Rs.75,000**
- **Full Page (Colour)** : **Rs.50,000**
- **Full Page (Black& White)** : **Rs.40,000**
- **Half Page (Black& White)** : **Rs.25,000**

Intending organisations/ institutions/ companies/start-ups may send their requests for booking advertisement space in the Souvenir along with 'ready to print' (required colour separates)/pdf

advertisement material in hard and digital copy and requisite payment online <https://www.43inca.org>.

#### Sponsorship Plans

Leading Cartography and Remote Sensing agencies, GIS companies, Consulting Organisations, Public Sector Organisations, Govt. Departments, Industries, Instrument Manufacturers, Start-ups and other agencies are invited to generously sponsor the 43<sup>rd</sup> INCA International Congress. Detailed sponsorship charges (excluding 18% GST) will be as under 4 broad categories. The Price for each category of sponsor will include one stall of size **3m X 3m** and free registration details given as under:

Strategic Sponsor	Rs. 7.5 Lakh (with free registration of 7 delegates)
Platinum Sponsor	Rs. 5.0 Lakh (with free registration of 5 delegates)
Gold Sponsor	Rs. 3.5 Lakh (with free registration of 3 delegates)
Silver Sponsor	Rs. 2.5 Lakh (with free registration of 2 delegates)

Details for sponsoring specific events are as follows:-

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**(a) Conference Kit:** Rs. 6,00,000 (plus 18 % GST) \*

4 delegates free, folded double page coloured advertisement in souvenir, name on kit bags at one place, 10 minute presentation.

**(b) Patron Sponsor:** Rs. 2,00,000 (plus 18 % GST) \*

4 delegates free, full-page advertisement in souvenir (coloured), 10 minute presentation.

**(c) Cultural Evening:** Rs. 1,50,000 (plus 18 % GST) \*

3 delegates free, full-page advertisement in souvenir (mono), 10 minute presentation, banner display.

**(d) Lunch/ Dinner:** Rs. 2,50,000 (plus 18 % GST) \*

4 delegates free, full-page advertisement in souvenir (mono), banners in dining area.

**(e) Inaugural Tea:** Rs. 1,00,000 (plus 18 % GST) \*

2 delegates free, half page advertisement in the souvenir (mono), banners in dining area.

**(f) Tea during Breaks:** Rs. 50,000 (plus 18 % GST) \* per session

1 delegate free, half page advertisement in the souvenir (mono), banners in dining area.

**(g) Co-Sponsor:** Rs. 50,000 (plus 18 % GST) \*

1 Delegate free, half page advertisement in the souvenir (mono), banner display at suitable places.

Organisations/Institutions/Companies desirous of sponsoring may forward the completed sponsorship form to the Organising Secretary along with advertisement material and details by **30<sup>th</sup> September, 2023**.

\* Sponsors from the foreign countries shall have to make payment equivalent to Rs. (INR) amount in their respective currencies.

## Industry Presentation Session

A session will be arranged exclusively for industry-sponsored presentations. Only those companies/ organisations/ institutes who want to sponsor a major event or setup a stall are permitted to make presentation. This session will provide an opportunity to the sponsors to introduce the state-of-art/latest innovations/OEM's product information to the delegates.

## General Information

### (a) About Jodhpur :

Jodhpur traditionally known as the "Sun City" was founded by Rao Jodha, a chief of Rathore clan, in 1459. It is the second largest city in Rajasthan and a very popular tourist destination. Jodhpur is best known for Mehrangarh Majestic Fort, Umaid Bhawan Palace, Mandore Garden and Clock Tower. Jodhpur is famous for its traditional sweets and spicy food. The lifestyle in Jodhpur is quite fascinating and colourful. Lending a cultural aura to Jodhpur, are its exquisite handicrafts, folk dances, folk music and the brightly attired people. The desert people are quite affable. Jodhpur has emerged as Center for Academic Excellence where apart from ISRO, a number of institutions like ICAR-CAZRI, IIT, AIIMS, ONGC, DRDO, AFRI, National Law University, Ayurvedic University, Police & Forensic Science University, BSI, ZSI and NIFT are located. Famous Osian sand dunes are just 65 km away from the city. The weather during November month will be pleasant as the temperature ranges from 20-35 degree Celsius. Jodhpur city is well connected with the national capital and other Indian cities through Air, Rail and Road transport. The congress venue is located within 15 km of the respective terminals. Jodhpur is about 600 km away from Delhi, 300 km from Jaipur, 450 km from Ahmedabad and 280 km from Udaipur.

### (b) How to Reach:

Jodhpur Airport is a domestic airport located at about 12 km away from RRSC-West/NRSC Regional Centre. Taxi cabs are available from the airport to Centre. The airport operates daily flights to all major cities of India. Jodhpur has a railway station well connected to all major cities in the country. All nearby cities are also connected to Jodhpur by bus service. The venue for the conference is the RRSC-West/NRSC Regional Centre which is about 10 km away from the Jodhpur railway station.

### (c) Weather & Clothing:

November is considered to be one of the best months to visit Jodhpur as the weather during this time is pleasant. The temperature during the day usually ranges between 25-30°C. However, it is advisable to carry a light jacket or sweater for the evening and early morning hours as the temperature can drop.

### (d) Accommodation:

The registration fee does not include accommodation. Jodhpur has large number of hotels ranging from budget to luxury/heritage hotels. The accommodation charges may vary from Rs. 1000/- to Rs. 5000/- and more for luxury/heritage hotels. The above rates are only indicative and may vary. Limited guest house accommodation will be available on payment (tariff as per respective institution's rule) and on first-come-first-serve basis. List of hotels with their indicative tariff and contact number will be available shortly on website <https://www.43inca.org>. Participants should book their accommodation in advance to avoid last minute rush. Transport will be provided from the hotels/ guest houses identified by the organisers to the conference venue.

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**Contact Details:**

Organising Secretary  
43<sup>rd</sup> INCA International Congress  
Regional Remote Sensing Centre - West, NRSC/ISRO,  
ISRO Complex, Bypass Road  
Sector 9, Kudi Bhagtasani Housing Board (KBHB)  
Jodhpur - 342 005, Rajasthan, India

Email: [info@43inca.org](mailto:info@43inca.org)  
Website: <https://www.43inca.org>

**Tentative Programme**

<b>6<sup>th</sup> November 2023</b>	
09:00 AM to 09:45 AM	Registration of Delegates
09:45 AM to 11:15 AM	Inaugural Session
11:15 AM to 11:30 AM	High Tea
11:30 AM to 01:00 PM	Endowment Lectures
01:00 PM to 02:00 PM	Lunch Break
02:00 PM to 03:30 PM	Technical Sessions
03:30 PM to 03:45 PM	Tea Break
03:45 PM to 05:30 PM	Technical Sessions
07:00 PM to 08:00 PM	Cultural Programme
08:00 PM to 09:30 PM	Dinner
<b>7<sup>th</sup> November 2023</b>	
10:00 AM to 11:30 AM	Technical Sessions
11:30 AM to 11:45 AM	Tea Break
11:45 AM to 01:00 PM	Technical Sessions
01:00 PM to 02:00 PM	Lunch Break
02:00 PM to 03:30 PM	Technical Sessions
03:30 PM to 03:45 PM	Tea Break
03:45 PM to 05:30 PM	Technical Sessions
<b>8<sup>th</sup> November 2023</b>	
10:00 AM to 11:30 AM	Special Session for Industry Representatives
11:30 AM to 11:45 AM	Tea Break
11:45 AM to 01:00 PM	Panel Discussion, Award Ceremony & Valedictory Function
01:00 PM to 02:00 PM	Lunch
02:00 PM to 04:00 PM	INCA General Body Meeting

## **Executive Committee**

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Dr. Prakash Chauhan, NRSC/ISRO

### **Co-President**

Shri Sunil Kumar, SGI

### **Past President**

Vice Admiral Adhir Arora, AVSM, NM

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Shri S. V. Singh, SOI

### **Vice-President**

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### **Vice-President**

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### **Vice-President**

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### **Secretary General**

Shri Pankaj Singh Kalam, SOI

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### **Secretary - II**

Shri Rajesh Kumar Khatri, NHO

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