23rd EDUSAT Outreach Programme on 'Basics of Remote Sensing, Geographical Information System and GNSS', sponsored by NNRMS and organized by IIRS/ ISRO, Dept. of Space, Govt. of India, Dehradun 21/8/2017 to 04/12/2017

## RAJA SHRIPATRAO BHAGAWANTRAO MAHAVIDYALAYA, AUNDH, SATARA

Indian Institute of Remote Sensing, ISRO, Dehradun Department of Space, Government of India

#### SUMMARY REPORT OF PROGRAM

Date: 31/12/2017

To,

The Principal,

R.S.B. Mahavidyalaya, Aundh

Tal. Khatav, Dist. Satara

I am submitting summary report of Outreach Programme. Please accept it.

- 1. Name of Programme: Basic of RS, GIS & GNSS
- 2. Duration: 21.8.17 to 1.12.17

Total Days: 102

- 3. Number of enrolled students: 26
- 4. Name of Coordinator: Dr. Telore Namdev Vasant
- 5. Name of Resource Persons:
- i) Er. Ashutosh Bhardwai ii) Dr. P.K.C. Ray
- iii) Dr. D. Mitra
- 6. Objectives of the Programme:
  - i. To know basic concepts of Remote Sensing.
  - ii. To know basic concepts of GIS.
  - iii. To study basic concepts of GNSS.
- 7. Outcome of the Programme:
  - i. Participants become aware of basic concepts of Remote Sensing.
  - ii. Participants become aware of GIS.
  - iii.Participants become aware of applications of GNSS.

Centre Coordinator

PRINCIPAL

(Dr. Namdev V. Telore) Dr. Namdey V. Telore

Co-preinator NRG Dutreach Programme, Behradun Ceotre: R.S.B. Mahavidyalaya, Aundh. Diot Satara Raja Shripatrao Bhagwantrao Mahavidyalaya, Aunch (Salara)





## IIRS Outreach Programme

Basics of Remote Sensing, Geographical Information System and Global Navigation Satellite System

August 21 - December 01, 2017

## Organised by

Indian Institute of Remote Sensing Indian Space Research Organisation Department of Space, Govt. of India Dehradun



#### About IIRS

Indian Institute of Remote Sensing (IIRS), a unit under Indian Space Research Organization (ISRS), Department of Space, Government of Inaia is a premier Training and Educational Institute set of for developing trained professionals in the field of Remote Sensing, Geoinformatics and GNSS Technology for Natural Resources, Environmental and Disaster Management. Formerly known as Indian Photo-interpretation Institute (IPI), founded in 1966, the Institute boasts to be the first of its kind in entire South-East Asia. While nurturing its primary endeavor to build capacity among the user community by training mid-career professionals, the Institute has enhanced its capability and evolved many training and education programmes that are tuned to meet the requirements of various target user groups in the society, ranging from fresh graduates to policy makers including academia.

The training and education programmes at IIRS includes the short duration customized courses, PG Diploma, Master's Degree (M.Tech and M.Sc.) in various disciplines. IIRS also conducts distance learning programmes under IIRS Outreach Activity.

## IIRS Outreach Programme

IIRS Outreach Programme focusses on strengthening the Academia and User Segments in Space Technology & Its Applications using Online Learning Platforms. IIRS distance learning program was initiated in 2007 with the participation of twelve universities in India. Till date, IIRS has successfully conducted 22 programs through live and interactive classrooms (also known as EDUSAT programme) and also launched five online courses under e-learning programme. Currently IIRS distance learning programme is being conducted through following modes:

- 1. Live and Interactive classroom sessions (http://dp.iirs.gov.in)
- 2. E-learning based online courses (http://elearning.iirs.gov.in)

#### Live and Interactive classroom

The use of Remote Sensing, Geographical Information System, Global Navigation Satellite System and associated geospatial technologies is increasing rapidly, creating an urgent demand for trained manpower. The live and interactive mode of distance learning is enabled through Internet and Aview software platform developed by Amrita e-learning Lab in collaboration with Ministry of Human Resource Development (MHRD) Government of India. The programs are available through Internet without any cost to the user. The live and interactive sessions will be conducted by experts from iISR-ISRO and other knowledge Institutions. IIRS has successfully conducted 22 such courses so far with participation of over 46590+ participants from 626+ academic institutions, government departments and industry. The beneficiaries of the programme may include:

- Central/State/Private Universities & Academic Institutions;
- Central & State Government Organizations/Departments;
- · Research Institutes;
- Geospatial Industry;
- NGOs

IIRS also conducts various theme oriented online courses and monthly webinars on recent topics on geospatial technologies and its applications. Users are encouraged to actively participate on these programs. For more detail please visit IIRS official website- <a href="https://www.iirs.gov.in">www.iirs.gov.in</a>

Dr. Namdey V. Telore

Co-ordinator

IIRE Outreach Programme ushrafun

Raja Shripatrao Bhagwantrao

#### Course Announcement

IIRS announces four courses commencing from August 21st, 2017

- Remote Sensing and Digital Image Analysis (21/08/2017 to 15/9/2017): Basic Principles of Remote Sensing, Earth Observation Sensors and Platforms, Spectral Signature of different land cover features, Image interpretation, Thermal & Microwave Remote Sensing, Digital Image Processing: Basic Concepts of Rectification and Registration, Enhancement, Classification and accuracy assessment techniques.
- Global Navigation Satellite System and Geographical Information System (25/09/2017 to 10/11/2017j: Introduction to GPS and GNSS, receivers, processing methods, errors and accuracy, GIS, databases, topology, spatial analysis and open source software.
- RS and GIS Applications (13/11/2017 to 01/12/2017): Agriculture and Soil, Forestry and Ecology, Geoscience and Geo-hazards, Marine and Atmospheric Sciences, Urban and Regional Studies and Water Resources.
- Basics of Remote Sensing, GIS and GIVSS (21/08/2017 to 01/12/2017): Comprehensive course consisting of above three courses.

The participants can register for individual course of their choice or the entire Programme.

## Target Participants

- Student of Undergraduate and Postgroduate courses (any year);
- Technical/ Scientific Staff of Central/ State Government Ministries/ Departments;
- Faculty / Researchers at university / Institutions.

## Course Study Material

Course study materials such as lecture slides, video recorded lectures, open source software, data handouts of demonstrations, etc., will be made available through IIRS ftp link (ftp://ftp.lirs.gov.in) Video lectures will also be uploaded on YouTube Channel (http://www.youtube.com/user/edusat2004).

#### Course Fee

There is no course fee.

## Course Registration

Course updates and other details will be available on URL- http://www.dlp.iirs.gov.in

- To participate in the program, organizations/universities/departments/ Institutes have to identify a Coordinator at their end. The coordinator is required to register his/her Institute as nodal centre at: (http://elearning.iirs.gov.in/edusat\_lms/cordinator\_registration.php).
- All the participants have to register online through registration (http://elearning.lirs.gov.in/edusat\_lms/student\_registration.php) selecting his/her organization as nodal centre.
- The Coordinator is required to approve the participants from his/her institute for each course.

Course Funding & Technical Support

The programme is spansared by Indian Space Research Organization, Department of Space. Government of India and is conducted with due technical support from Amrita Virtual & Interactive E-learning World (A-VIEW).

## Programme Reception

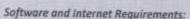
Programme can be received through Internet connectivity of 2Mbps or better. Following hardwage and software set-up is required of user end:

Hardware Requirements:
Dr. Namdev V. Telore Co-ordinator

III Outreach Programme, Denradue

Raja Shripatrae Bhagwantrae

- High-end Computer/Laptop (Windows OS);
- Good quality web camera (optional);
- Headphone with Microphone (optional) and Speakers;
- Large Display Screen (Projector or TV).



- Desktop based: A-VIEW software (free to download from www.aview.in or IIRS ftp link: ftp://ftp.lirs.gov.in)
- Online live access through http://live.lirs.gov.in with free registration.

#### Connectivity & Other configurations:

- NKN or any other high speed internet facility (preferably without firewall, with minimum of 2 Mbps bandwidth)
- Network requirements: Part 80 and RTMP (part 1935) protocol should be unblocked from user's computer and Firewall.

Note: Participating Institutions have to bear total expenses for establishment of the classroom facility.

#### Award of Certificate

Working Professionals: Based on 70% attendance and submission of assignments.

Students: Based on 70% attendance and online examination.

#### Feedback Mechanism

The participants and participating organizations are invited to attend annual IIRS. User Interactive Meet (IUIM) at IIRS Dehradun. The participants can submit their feedback online through IIRS elearning portal. Feedbacks are critically analyzed and implemented in next courses.



Outreach Programme Feedback Session during IIRS User Interaction Meet (IUIM)-2017





IIRS received two national awards for excellence ig training for outreach and e-learning programme by Department of Personnel & Training (DoPT), Govt. of India in collaboration with United Nations Development Programme (UNDP).

#### Contact Details

Dr. Namdev V. Telora Co-ardinator IIRS Distance Learning Centre IIM Burreach Programma. Gent adult

Indian Institute of Remote Sensing Whater Spice Research Organization

Department of Space, Govt. of India, 4-Kalidas Road, Dehradun-248001

Email: dlp@lirs.gov in: Tel: 0135-2524130/4354/4115; Mobile: 9410924417, 7895309151 Monday to Friday (9:30 AM to 05:00 PM)

Raja Shripafran Phagwantrao Mahavidyaluya.Jundh(Satara)



अंतरिक विभाग भारतीय सुदूर संवेदन संस्थान

4. कालीयास मार्ग, यो. बाक्स सं, 135 वेहसवून-248001, भारत वूरमाष:+91-135-2524399 फैक्स:+91-135-2741987, 2748041



Government of India Department of Space

Indian Institute of Remote Sensing

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Telephone : +91-135-2524399

: +91-135-2741987, 2748041

सं.: आई-आई-आर.एस. / एड्संट/ 2017/ 23

दिनाक: 10<sup>th</sup> जुलाई, 2017

Ph.:02161 282324

डॉ. ए. संधिल कुमार निदेशक

> विषयः २१ अगस्त २०१७ से "सुद्र संवेदन, और्गालिक सूचना प्रणाली तथा वैश्विक लेविगेशन उपग्रह प्रणाली" पर प्रारम्भ होने वाले 23<sup>8</sup> आई-आई-आर-एस- आउटरीच कार्यक्रम की घोषणा के संबंध में।

महोदय/ महोदया,

भारतीय अंतरिक्ष अनुसंधान संगठन (इसरी) ने अपने सशक/ व्यायसाविक भू-पेक्षण कार्यक्रम के अंतर्गत पिछले 50 वर्षों के दौरान कई उपग्रह प्रक्षेपण किए हैं। भारतीय सुदूर संवेदन संस्थान (आईआईआरएस) भारतीय अन्तरिक्ष अनुसंधान संगठन (इसरो) का एक प्रमुख संस्थान है जो विष्ठते पांच दशकों से प्राकृतिक संसाधनों की निगरानी और आपदा प्रबंधन के लिए भू-स्थानिक पौदोगिकी के इस्तेमाल पर प्रशिक्षण, शिक्षा तथा क्षमता निर्माण में जुड़ा हुआ है। इस संस्थान द्वारा अब तक 22 उपबहर इंटरमेंट आधारित आउटरीच पाठ्यक्रम संचालित किए जा चुके हैं। इस पाठ्यक्रमाँ से सरामण 631 भारतीय विश्वविद्यालयी/ संस्थानों के करीब 49.458 से अधिक प्रतिभागी लाभात्यित हुए हैं।

अंतरिक्ष आधारित मू-स्तरीय प्रौद्योगिकियाँ और इसकी उपयोगिताओं की पूरी संभावना को बढ़ाया देने के लिए. आई.आई.आर.एस. 21 अगस्त 2017 से दिसंबर 01, 2017 तक "बेसिक्स ऑफ रिमोट सेंसिंग, जीआईएस और जीएनएसएस" पर 23 वी आउटरीच कार्यक्रम की घोषणा करता है। इस कार्यक्रम में तीन पाठ्यक्रम हैं जिनमें रिमोट सैसिंग और डिजिटल खिंब विश्लेषण (21 अगस्त - 15 सिलंबर, 2017), **ग्लोबस नैविगेशन सेंटेलाइट सिस्टम** (25 सिलंबर से 10 लवंबर, 2017) तथा **औगोलिक सूचना प्रणाली** एवं आरएस और जीआईएस एप्लीकेशन (13 नवंबर-दिसंबर 1, 2017)। प्रतिभागी अपनी पसंद के पाठ्यक्रम अथवा पूरे कार्यक्रम के लिए भी पंजीकरण कर सकते है।

यह प्रतिभागियों के लिए एक अच्छा अवसर है जिससे वे सीधे अपने निवास स्थान से प्रतिदिन डेढ़ घंटे समर्पित करके इस अवसर से लाभान्वित हो सकते हैं। यह कार्यक्रम अंतरिक्ष विभाग, और क्षमता निर्माण के लिए भारत सरकार द्वारा प्रायोजित है। कार्यक्रम के सफलतापूर्वक समापन के बाद प्रतिमागियाँ को आईआईआरएस, इसरो द्वारा प्रमाण यत्र दिया जाएगा।

कार्यक्रम 1600 - 1730 घंटे बजे के दौरान निर्धारित है तथा प्रति सप्ताह 4/5 दिन आयोजित क्रिया जाएगा। इस कार्यक्रम की घोषणा, बीशर और शेंड्यूल की एक कोपी आपके संगठन के परिसंचरण और आपके के अवलोकन के लिए इसके साथ भेजी जा रही है। कार्यक्रम / पाठ्यक्रम यूजी और पीजी छात्रों / शोधकर्ताओं / वैज्ञानिक / तकजीकी कर्मधारियों एवं इच्छुक व्यक्तियों के तिए खुला है। इसके व्यापक प्रचार तथा प्रसार हेतु आपके संगठन से अधिकतम मागौदारी के लिए आपके सहयोग की अपेक्षा है। इस पत्र के राध कार्यक्रम के अन्य विवरण संसान है।

अधिक जानकारी के निए कृपया आईआईआरएस की वेबसाइट http://dlp.iirs.gov.in पर लींग इन कर सकते हैं। शुभकामना सहित.

सहपत्रः पाठ्यकम अस्मृती

मारतीय अंतरिक्ष अनुसंधान संगठन इसमी क्रा Indian Space Re

Dr. Namdey V. Telore Co-ordinator

ING Outreach Programme, Dehrades

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Dr. A. Senthil Kumar Director



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No.: IIRS/GIT&DL/EDUSAT/2017/2

Date: 10<sup>TH</sup> JULY, 201

Sub: Announcement of 23th IIRS Outreach Program on "Basics of Remote Sensing, GIS and GNS" commencing from 21 August 2017.

Dear Sir/ Madam,

As you aware that the Indian Space Research Organization (ISRO) has a vibrant Earth Observation (EO) programme with many satellite missions launched during last 50 years. The Indian Institute of Remote Sensing (IIRS) is a premier institute of ISRO engaged in training, education and capacity building on use of geospatial technology for natural resources monitoring and disaster management since last five decades. The institute has so far conducted 22 Satellite and Internet based Outreach Programmes, benefitting more than 49,458 participants from 631 Indian universities/ institutions/user Departments/user ministries in India.

To promote the full potential of space based geospatial technologies and its use, IIRS announces 23rd Outreach Programme on "Basics of Remote Sensing, GIS & GNSS" commencing from August 21, 2017 to December 01, 2017. The Programme consists of three courses namely Remote Sensing and Digital Image Analysis (August 21 - September 15, 2017), Global Navigation Satellite System (September 25 - November 10, 2017) and Geographical Information System and RS and GIS Applications (November 13- December 01, 2017). The participants can register for individual course of their choice or the entire programme also.

It is a unique opportunity to learn directly by devoting one and half hours on each day from the place of stay of the participant. The Programme can be attended without any fee and will be available freely live through internet by utilizing freely available A-view software (www.aview.in). This programme is sponsored by Department of Space, Government of India for capacity Building and skill development in the area of geospatial technology and its applications. After successful completion of the programme the participants will be awarded with certificate from IIRS, ISRO.

The programme is scheduled during 1600 Hrs. - 1730 Hrs. and will be conducted 4/5 days in a week. A copy of the announcement brochure and schedule of this programme is forwarded herewith for your kind perusal and also for wider circulation in your organisation. The programme/course is open to UG & PG students/researchers/scientific/technical staff and interested individuals. We need your support for wide publicity and maximum participation from your organisation.

Further details of the programme are enclosed with this letter. You may also visit IIRS website http://dlp.iirs.gov.in for more details. With regards and best wishes,

Encl: Brochure and Course Schedule

Senthil Kumar)

मारतीय अंतरिक्ष अनुसंधान संगठन इसरोहान्छ Br. Namdey V. Telore Co-ordinator

IIRE Outreach Programme, Dehradus

Raia Shripatran Shaqwantrae

Indian Space Research

Control R. S. B. Mahavidyalaya, Aundh Dint, Satara







# Twenty-third IIRS Outreach Programme On Basic of RS, GIS & GNSS

## Tentative Schedule

SI No.	Module Name	From	То
1	Remote Sensing and Digital Image Analysis	22-08-2017	15-09-2017
2	Global Navigation Satellite System & Geographical Information System	25-09-2017	10-11-2017
3	RS & GIS Applications	13-11-2017	04-12-2017

Technical Support from

A-VIEW, Amrita University, Coimbatore

July, 2017

Dr. Namdey V. Telore

Co-ordinator

HRG Getrench Programme, The Hun Centreck S. B. Mahavidyalaya, Aunch, 1997, Shinsa PRINCIPAL

Raja Shripatrao Bhagwantrao Mahavidyalaya, Aundh (Satara)



		Mod	ule 1: Remote Sensing & Digital Image Analysis		
Date	Day	Time	dulei Course Coordinator: Ms. Minakshi Kumar		
21 Aug 17	Mintelle	1600-1730 hrs	Course frauguration and introductory Lecture	Speaker	
22 Aug 17	Tuesday	3600-1730 hrs	Basic Principles of Remote Sensing	Dr. A. Sembil Kumar	
33 Aug 17	Wednesday	1600-1770 hrs	Earth Observation Sensors and Platforms	Mrs. Mara: Melm	
24 Aug 17	Thirnday	1000-1730 lps	Thermal Remote Sessing	Mr. Vitay Kumar	
28 Aug (7		1700-010-750	Gazon Chaturthi	Dr. Yogesh Kase	
24 Aug 17			Saturday		
27 Aug 17			Sender		
28 Aug 17	Menday	1600-1720 lim	777700	Andrew Street	
		1	Spectral Signatures of Different Land cover Features and Visual Image interpretation	Dr. Hisa Pande	
29 Aug 17	Tuesday	Offline Ollorong	RS and Image Interpretation Practical	By University Coordinate	
36 Aug 17	Wednesday	Setting) In Cartering Continue			
21 Aug 12	Hagaday	BREAK			
Ot Sep 17	10.7	No. of the last of	Digital Image Processing Basic Concepts Recollection and Registration	Mis. Minskshi Kunur	
C Sup 17 Friday 1000-1730 hrs		1600-1730 trs	Image Enhancement trobuspies	Dr. Priosan S. Towari	
62 Sep 17	Seturday				
13 Sep 17			Sunday		
14 Sep 17	Monday BREAK-ONAM				
15 Sep 17	Tuesday	1600-1750 hrs	Image Classification Techniques and Accuracy Assessment	TERRITOR	
16 Sep 17	Wednesday	1600-1750 hrs	Microwave Remote Sensors	Dr. Promate S. Tiwati	
07 Sep 17	Thorotoy	1400-1730 km		Mr. Sharle Kumar	
08 Sep 17	Tride	The state of the s	Hyperspectral Return Sensing	Mrs. Shefali Agarwal	
a sup i	Trans.	Office - so per computer ish evaluation	Image Processing Hands-on and Practical Assignment	By University Coordinates	
19.5cp 17		Montag Session	Security	1.00cminus	
4.5ep 17	_				
1.3ep 17	Monday	3606-1730 les	Sunday		
2 Sep 17			Demonstration Image Processing	Mrs. Minikahi Kumar	
	Tuesday	Offine - as ger computer feb availability	Practical Assignment submission by Participants to respective noordangum and evaluation to be done by respective coordinates:		
3 Sep. 17	Wednesday	3800-2730 MH.	Proct Documen Medic-1	Faculty of Module-1	
4 Sep 17			BREAK For Examination	Committee of the commit	
5 Sep. 17	Today	530 tim to (740 tim	The state of the s		
-	10000	Continue Complete	Online Executative of Modern-T	Edward Teams	

IIRG Outreach Programme, -- fun Centreck S.R. Mahavolyalnya, Aundia -- Sacara PRINCIPAL Raje Shripatrao Bhagwantrao Mahevidyalaya, Aundh (Satara)

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	Congraphical	Mintale 2 Glub Information System Made 1	od Navigotion Satellite System and	COUNTY TO THE	
25 Sep 17	Membay	1600-1750 hrs	arts Coordinator: Shri Ashatosh Bhardwaj & Shri Prasur Kun Introduction to GPS and GNSS	Er. Ashistosh filhandwai	
26 Sep. 17	Tuesday .	1600-1730 hrs	CRE CONTROL OF THE CREATE CONTROL OF THE CRE		
27 Sep 17	Wednesday	1600-1730 hrs	Satellites based Augmentation systems & GPS Aided	Ex Ashutosh Bhardwaj  Ex Ashutosh Bhardwaj	
28 Sep 17	Thursday	1600-1730 hrs.	and GEO Augmented Navigation (GAGAN)  GPS signal characteristics, Data formats (broadcast,	Sho S. Raghavendra	
29 Sep 17			procise ephemeris)  OREAK	siers sugarveius	
70 Sep 17	_				
DT Oct 17			Dwerhra - Saturday		
10000121			Sunday		
02 Oct 17	Monday		Gandhi Jayunthi		
Date	Day	Time	Topic		
03 Oct 17	Tuesday	1600-1730 hrs	Indian Regional Navigation Satellite System (IRNSS)	Speaker Er Ashutosh Bhardwaj &	
04Oct 17	Wednesday	1600-1730 hrs	DGPS demonstration (Pre-recorded followed by live	Shri Kamal Pandey Shri S. Raghavendra	
05 Oct 17	Thursday	1600-1730 hrs	query session) Mobile Mapping		
Ni-Oct 17	Friday	State	20/3	Dr. Haroh Chandra Kamatsi	
97.Oct 17	Fratay		BREAK		
18 Oct 17	-		Saturday		
M OCL IT	_		Swiiday		
1		Geograph Module/ Course C	ical Information System Joordinator: Shri Prasun Kumar Gupta		
79 Oct 17	Monday	1600-1730 hrs	Introduction to GIS	Dr. Sameer Suran	
9 00117	Toesday	1600-1730 hrs	Geographic Phenomena, Concepts and examples	Shri P K Gupta	
1 Oct 16	Wednesday		Break		
12 Get 17	Thursday	5600-1730 hrs	Data Inputting and Editing in GIS	Shri Shiva Roddy	
DOCT.	Friday	1600-1730 hrs	GIS Data Models (Spatial and Non spatial)	Shri Ashitosh Komer Tha	
14 Oct 17			Swardey		
5 Out 17			Sunday		
16 Oct 17	Monday	1600-1730 hrs	Map Projection Concepts & Use in RS & GIS	Dr. Ashutosh Servanay	
7.0a.17	Tuesday	1600-1730 hrs	Spatial Analysis-Introductory Concepts and Overview	Shri Prabbhar Alok Verma	
8 Oct 17			BREAK	SOUTH TRANSPORT FOR THE PARTY OF THE PARTY O	
9 Oct 17	_		Divali		
0 Oct 17					
1 Oct 17	_		BREAK		
12 Oct 17			Saturday		
3-Oct 17			Sunday		
	Monday	1600-1730 hrs	Spatial Analysis- Functionality and Tools	Shri Kapil Ohenii	
4 Oct 17	Tuesday	1600-1730 hrs	Dermo of Colif. Software - Sension 01:  - Adding GIS Data, Authbure adult & identity tool  - Change symbology, Creat map composers  - Manage plugms, CRS & EPSG  - Geo-referencing & Tie-points, KMSE & Rectification.	Shri P K Gupta	
5 Oct 17	Wednesday	1600-1730 hrs	Demo of QGIS Software - Session U2 (Data Greation/Vector Generation)  - Digitization, Setting digitizing environment  - Adding attributes to layer, Editing digitized layer  - Attribute Queries, Spatial Queries Lasking aparial & one-inparial data	Shri ₹ K. Guptu	
6 Oct 17	Thursday	1600-1730 hrs	Open Source S/w Technology & Tools	Shri P K Gupta	
7 Out 17	Friday	1600-1730 brs	Data Quality & Policies OGC, NSDI & OSDI Dr. Harish Karnatsia		
8 Oct 17	-	The second second	initiatives. Discussion on Internet resources  Seturday		

Dr. Namdev V. Telore Ca-ordinator IIRS Outreach Programme, Dehradum CentrerR.S. B. Maharidyalaya, Auridh, Dist. Satara

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29 Oct 17			Sunday			
30 Oct 17	Monday	1660-1730 hrs	Spatial Data Management using ROBMS-Demo on PowGRE SQL+ Post GIS	Shri Kapil Oberai		
31 Oct 17	Tuesday	1600-1730 hrs	3D GIS and Application including Trivini	Shri Shova Reddy		
01 Nov 17	Break					
02 Nov 17	Thursday	1600-1730 hrs	Gee-Web Services: Technical Concepts and Applications	Dr. Harish Kamatak		
03-Nov-17	Friday		Uncertainty is GIS and Error Propagation	Shri Hari Shankue		
04 Nov.17	Saturday - Guru Nanak Birthday					
05 Nov 17	Sunday					
06 New 17	Monday	1600-1730 hrs	Customization in GIS	Shri Kamal Pandry		
07 Nov 17	Tuesday	1600-1730 hrs	Recent Trends in Gesinformatics	Dr. Sameer Sarun		
60 Nov.17	Widnesday	1600-1730 les	Panel Discussion of Module 2			
09 Nov 17.	Thursday	1000-1730-tes Paret Discussion of Module 2 Faculty of Module-2  Break				
10 Nov 17	Tricay	9:30 Mes to 17:00 Eys	Ostine Exam - Global Navigation Katellin; System and Geographical Inflormation System	Edwar Team		

			Module/3 RS & GIS Applications Module/ Course Coordinator: Dr. Arijit Roy	BUILD		
Date	Day	Time	Topic	Speaker		
13 Nov 17	Montay	3600-1730 hrs	Space Technology & its applications in governance	Dr. S. K Srivariav		
14 Nov 17	Tuesday	3600-1730 hrs	Remote Sensing and GIS Applications in Soil Resource Assessment	Dr. Surash Kamar		
15 Nov 17	Wednesday	1600-E730 tus	Remote Sensing Applications in Agriculture-Crop Inventory & Violat Forecasting	Dr. N.H. Patel		
In Nov 17	Thursday	3600-3730 Brs	RS & GIS Applications in Forestry and Ecology	Dr. Saman Singh		
17 Nov 17	Friday	1600-1730 lgs	Engineering Geology with emphasis on laudifide malies	Dr. Shovan Chatters		
18 Nov 17	Saturday					
19 Nov 17	Sunday					
20 Nov 17	Monday	1600-1750 hrs	Geology and Geomorphology	Dr. R.S. Chatteriee		
21 Nov 17	Tuesday	1800-1750 brs	Spoce-enabled Products & Services for Disaster Management Indian Initiatives	Dr. P.K.C.Ray		
22 Nov 17	Wednesday	1600-1730 hm	Geospatial Technology for climate change studies	Dr. Argit Ray		
23 Nov. 17	Thursday	1600-1750 hrs	RS & GIS Applications to Water Resources Management	Dr. S.P Aggrewal		
34 Nov.17	Friday	1600-1730 hrs	RS & GIS for Countal Zone Management	Dr. D. Mima		
25 Nov 17	Saturday					
26 Nov 17	Sunday					
27 Nov 17	Monday.	1600-1730 hrs	Remote Sensing Application to Atmospheric & Marine Environment	Dr. A.E. Mishra		
28 Nov 17	Tuesday	1600-1730 hrs	RS & GIS Application in Urban & Regional Planning	Dr. Pramod Kumar		
29 Nov 17	Wednesday	1600-1730 hrs	Goo-web Services and mobile GIS in government	Dr. Harish Karnatak		
10 Nov 17	Thursday	1600-1736 hrs	Fanri Discussion Module-3	Faculty of Misdale-3		
04 Dec 17.	Monday	9:30 His to 17:00 His				

Dr. Namdev V. Telore Ce-ordinater IIRS Outreach Programme, Untradum Canterit, S.B. Mahavid polinya, Aundh, Dici, Satura

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#### INDIAN INSTITUTE OF REMOTE SENSING

Indian Space Research Organisation Department of Space, Government of India





## Raja Shripatrao Bhagawantrao Mahavidyalaya, Aundh, Dist. Satara

## Twenty-third IIRS Outreach Programme

Basics of Remote Sensing, Geographical Information System and Global Navigation
Satellite System

#### August 21 to December 01, 2017

#### **Registered Students**

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Dr. Namdey V. Telore Co-ordinator

HRG Outreach Frogramme, Dehraden Centre R.S.B.Mossidinings, Aunds, Dest Satura PRINCIPAL Raia Shrinatzan Shan

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#### भारतीय सदूर संवेदन संस्थान/ INDIAN INSTITUTE OF REMOTE SENSING मारतीय अंतरिक्ष अनुसंघान संगठन/ INDIAN SPACE RESEARCH ORGANISATION अंतरिक्ष विमाग, भारत संस्कार/ DEPARTMENT OF SPACE, GOVERNMENT OF INDIA



बहि:परिसर संपर्क/विस्तार कार्यक्रम प्रमाण पत्र OFF - CAMPUS OUTREACH CERTIFICATE PROGRAMME COR233232618

संस्थान की भागीदारी का प्रमाण पत्र CERTIFICATE OF PARTICIPATION OF INSTITUTE

यह प्रमाणित किया जाता है कि राजा श्रीपतराब भगवंतराव महाविद्यालय, औंध, महाराष्ट्र ने भारतीय सुदूर संवेदन संस्थान, इसरो देहारादून द्वारा संचालित ऑनलाइन प्रशिक्षण पाटचकम 'रिमोट सेंसिंग की मूल बातें, भौगोलिक सुचना प्रणाली एवं वैश्विक नेविगेशन सैटेलाइट प्रणाली'' में भाग लिया। इस ऑनलाइन पाठचक्रम का संचालन दिनांक 21 सितम्बर 2017 से 04 दिसम्बर 2017 तक किया गया।

This is to certify that Raja Shripatrao Bhagawantrao Mahavidyalaya, Aundh, Maharashtra, has participated in online training programme conducted by Indian Institute of Remote Sensing, ISRO Dehardun on "Basics of Remote Sensing, Geographical Information System and Global Navigation Satellite System". This online programme was conducted during August 21, 2017 to

December 04, 2017 विकास Date 16-01-2018 प्रमुख

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वियोवेव सर्विशेश, शूचना प्रौद्योगिकी एवं दूरस्य ब्रव्हिनम विभाग

समूह निदेशक मु-स्थातिक प्रौद्योगिकी एवं व्यवटरीच कार्यक्रम समूह

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भारतीय सुदूर संवेदन संस्थान/ INDIAN INSTITUTE OF REMOTE SENSING मारतीय अंतरिक्ष अनुसंघान संगठन/ INDIAN SPACE RESEARCH ORGANISATION

अंतरिक्ष विमाग, भारत सरकार/ DEPARTMENT OF SPACE, GOVERNMENT OF INDIA



बहि:परिसर संपर्क/विस्तार कार्यक्रम प्रमाण पत्र OFF - CAMPUS OUTREACH CERTIFICATE PROGRAMME समन्वयक प्रमाण पत्र

COR233232018

समन्वय का प्रमाणपत्र CERTIFICATE OF COORDINATION

यह प्रमाणित किया जाता है कि राजा श्रीपतराव भगवंतराव महाविद्यालय. औध, महाराष्ट्र में कार्यरत डॉ नामदेव वसंत तेलीरे, ने 'रिमोट सेंसिंग की मुल बातें, भौगोलिक सुचना प्रणाली एवं वैश्विक नेविगेशन सैटेलाइट प्रणाली" विषय पर इस संस्थान द्वारा दिनांक 21 सितम्बर 2017 से 04 दिसम्बर 2017 तक संचालित ऑनलाइन प्रशिक्षण पाठचक्रम को समन्वित किया।

This is to certify that DR. DR. NAMDEV V. TELORE, working with Raja Shripatrao Bhagawantrao Mahavidyalaya, Aundh, Maharashtra, has coordinated the online training course on "Basics of Remote Sensing, Geographical Information System and Global Navigation Satellite System" conducted by this institute during August 21, 2017 to December 04, 2017.

16-01-2018 दिनाँक/ Date देहारादून/ Dehradun

जियोवेब सर्विसेस, सूचना प्रौद्योगिकी एवं दूरस्थ अधिगम विभाग Geoweb Services, IT & Distance Learning Department, IIRS

रास, के प्रिवासिक

समूह निदेशक भू-स्थानिक प्रौद्योगिकी एवं आउटरीच कार्यक्रम समृह Group Director, Geospatial Technologies & Outre Group, IIRS

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