Best Practices:

1. Title of the Practice: To organize Online Courses during Covid-19 Pandemic situation

2. Objectives of the Practice:

1. To organize online Courses on various topics
2. To open platform on ISRO (Indian Space Research Organization) based courses on environmental issues
3. To provide online platform for the participants during Pandemic
4. To provide open and online learning opportunity to the participants

3. The Context:

During the pandemic situation there was lock down everywhere in the world. There are number of courses offered by the various institutes. Use of online platforms for the study was the major part. In this context we decided to give the open and online platform with the help of ISRO for the students and teachers. ISRO is offereing various courses related to the environment and geology. Curriculum of the courses is well designed with potential of co-curricular, extracurricular and trans-disciplinary approaches.

4. The Practice

In the selected practice we offered various course through the ISRO. Most of the courses were related to the space, geology, geography, Remote sensing, Geoinformatics, total 19 courses were selected by the various participants. Describe the practice and its uniqueness in the context of India higher education. What were the constraints / limitations, if any, faced (in about 400 words)?

5. Evidence of Success :

In 19 courses total 570 students and teachers were participated. the course were open for the participants of interest from all over the country.

6. Problems Encountered and Resources Required

Publicity and popularity of the courses as the Information of the courses were available on website of ISRO and institute. There is no need of the additional infrastructure.

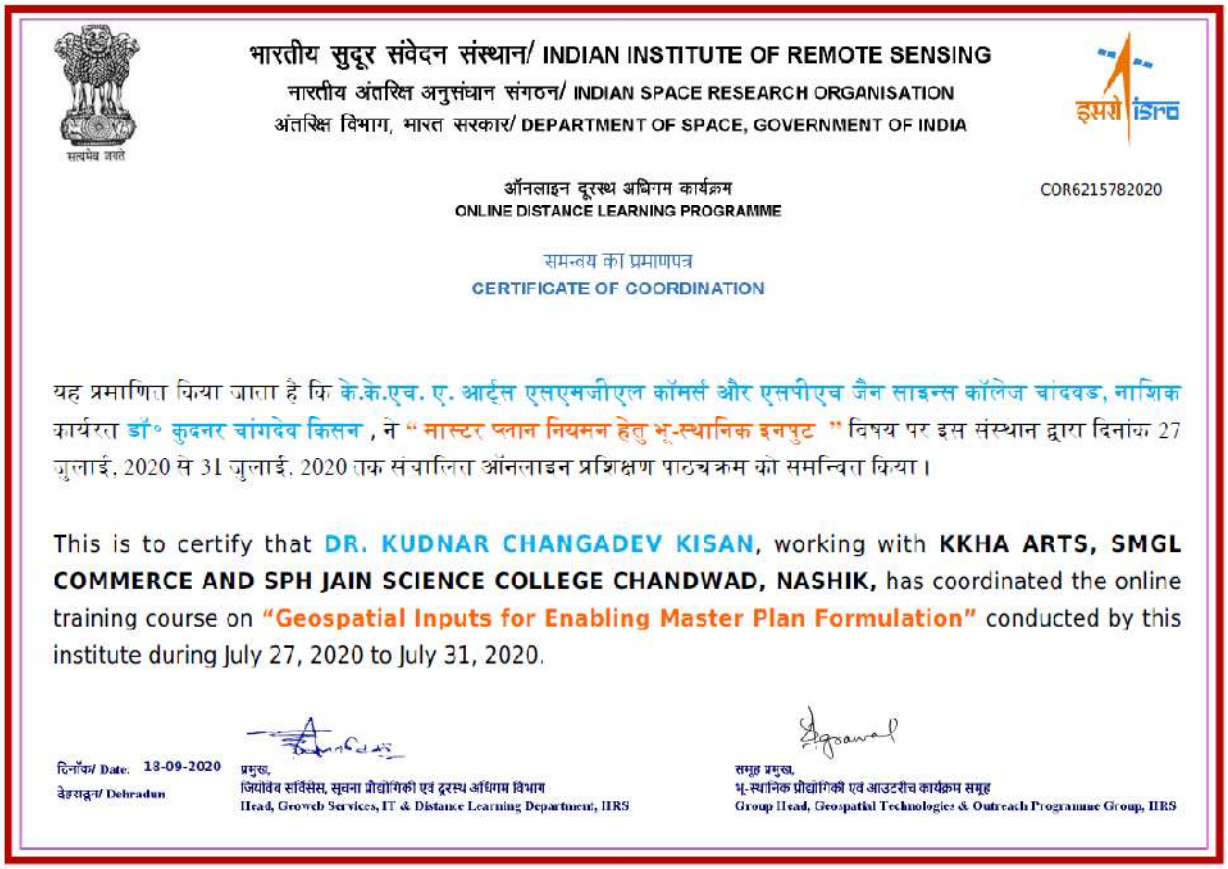
7. Notes (Optional)

During the online education platform there was need of the various inputs related to the curriculum hence such kind of activities will definitely fulfill the demand of the students and teachers who take interest.

Table: 1 . List of the courses and number of beneficiary

Sr.No	Course Name	Date	Beneficiary	Remarks	Organized by
1	Basic Principles of Remote Sensing Technology	April 13- 25, 2020	70	Coordinator	Indian Institute of Remote Sensing/Indian Space Research Organization,/Department of Space/ Govt. of India Dehradun https://elearning.iirs.gov.in/
2	Basics of SAR Remote Sensing	May 26- May 30, 2020	51	Coordinator	
3	IIRS Outreach Programme on Health GIS: Geoinformatics for COVID19	June 15, 2020 to June 19, 2020	59	Coordinator	
4	1010 One Day Online Workshop on Fuzzy Machine/Deep Learning for Remote Sensing Data Processing	June 1, 2020	50	Coordinator	
5	61st IIRS Outreach Programme Application of Geoinformatics in Ecological Studies	July 13-24, 2020	30	Coordinator	
6	61st IIRS Outreach Programme Satellite Photogrammetry and its Applications	June 29- July 3, 2020	37	Coordinator	
7	62st IIRS Outreach Programme Geospatial Inputs for Enabling Master Plan Formulation	July 27-31, 2020	25	Coordinator	
8	63rd IIRS Outreach Programme on "Remote Sensing Applications in Agricultural Water Management"	August 3–7, 2020	26	Coordinator	Indian Institute of Remote Sensing/Indian Space Research Organization,/Department of Space/ Govt. of India Dehradun
9	64 Sixty Fourth IIRS Outreach Programme On Basic of RS, GIS & GNSS	17 August-11 September 2020	28	Coordinator	
10	65st IIRS Outreach Programme Remote Sensing & Digital Image Analysis	17 August-11 September 2020	27	Coordinator	
11	66st IIRS Outreach Programme Global Navigation Satellite System	14 September to 29 September 2020	54	Coordinator	
12	67th IIRS Outreach Programme Understanding of coastal ocean processes using remote sensing and numerical modelling	September 21-25, 2020	21	Coordinator	
13	68 IIRS Course Geographical Information System	29 Oct.2020 to 15 Nov.2020	24	Coordinator	

14	69Basics of Remote Sensing, Geographical Information System and Global Navigation Satellite System	17 aug.20 Nov.2020	09	Coordinator	
15	70th IIRS Outreach Programme Remote Sensing of Land Degradation	December 01 – December 07, 2020	25	Coordinator	
16	71st IIRS Outreach Programme Advances in SAR-Polarimetry and Interferometry	December 14- 18, 2020	12	Coordinator	
17	73rd IIRS Outreach Programme Overview of Geo-processing using Python	January 18-29, 2020	04	Coordinator	
18	72 th IIRS Outreach Programme Basics of Geocomputation and Geoweb Services	19 Oct.29 Oct.2020	06	Coordinator	
19	74 Satellite based Navigation: A Journey from GPS to Mobile Phone Platform March 1-12, 2021	1 march 2021to 12 March 2021	12	Coordinator	



भारतीय सुदूर संवेदन संस्थान/ INDIAN INSTITUTE OF REMOTE SENSING
नारतीय अंतरिक्ष अनुसंधान संगठन/ INDIAN SPACE RESEARCH ORGANISATION
अंतरिक्ष विभाग, भारत सरकार/ DEPARTMENT OF SPACE, GOVERNMENT OF INDIA

ऑनलाइन दूरस्थ अधिगम कार्यक्रम
ONLINE DISTANCE LEARNING PROGRAMME

COR6215782020

समन्वय का प्रमाणपत्र
CERTIFICATE OF COORDINATION

यह प्रमाणित किया जाता है कि के.के.एच. ए. आर्ट्स एसएमजीएल कॉमर्स और एसपीएच जैन साइन्स कॉलेज चांदवड, नाशिक कार्यरत डॉ॰ कुदनर चांगदेव किसन , ने " मास्टर प्लान नियमन हेतु भू-स्थानिक इनपुट " विषय पर इस संस्थान द्वारा दिनांक 27 जुलाई, 2020 से 31 जुलाई, 2020 तक संचालित ऑनलाइन प्रशिक्षण पाठ्यक्रम को समन्वित किया।

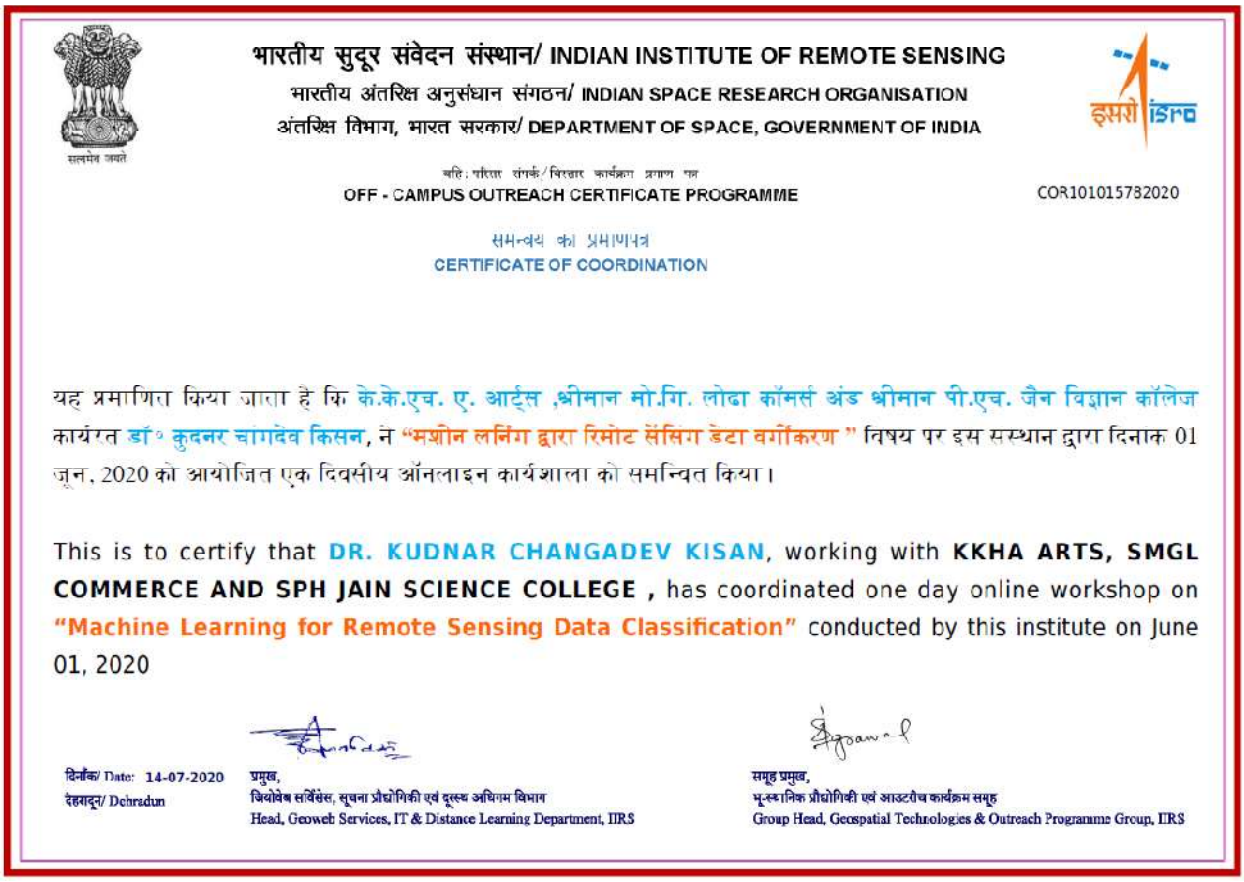
This is to certify that **DR. KUDNAR CHANGADEV KISAN**, working with **KKHA ARTS, SMGL COMMERCE AND SPH JAIN SCIENCE COLLEGE CHANDWAD, NASHIK,** has coordinated the online training course on **"Geospatial Inputs for Enabling Master Plan Formulation"** conducted by this institute during July 27, 2020 to July 31, 2020.

दिनाँक/ Date: 13-09-2020
देहरादून/ Dehradun

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

समूह प्रमुख,
भू-स्थानिक प्रौद्योगिकी एवं आउटरीच कार्यक्रम समूह
Group Head, Geospatial Technologies & Outreach Programme Group, IIRS

Figure 1. Appointment certificate of the Coordinator



भारतीय सुदूर संवेदन संस्थान/ INDIAN INSTITUTE OF REMOTE SENSING
भारतीय अंतरिक्ष अनुसंधान संगठन/ INDIAN SPACE RESEARCH ORGANISATION
अंतरिक्ष विभाग, भारत सरकार/ DEPARTMENT OF SPACE, GOVERNMENT OF INDIA

सत्यमेव जयते

इसरो isro

बाहरी परिसर संपर्क/विस्तार कार्यक्रम प्रमाण पत्र
OFF - CAMPUS OUTREACH CERTIFICATE PROGRAMME

COR101015782020

समन्वय का प्रमाणपत्र
CERTIFICATE OF COORDINATION

यह प्रमाणित किया जाता है कि के.के.एच. ए. आर्ट्स ,श्रीमान मो.गि. लोढा कॉमर्स अंड श्रीमान पी.एच. जैन विज्ञान कॉलेज कार्यरत डॉ॰ कुदनर चांगदेव किसन, ने "मशीन लर्निंग द्वारा रिमोट सेंसिंग डेटा वर्गीकरण " विषय पर इस संस्थान द्वारा दिनांक 01 जून, 2020 को आयोजित एक दिवसीय ऑनलाइन कार्यशाला को समन्वित किया।

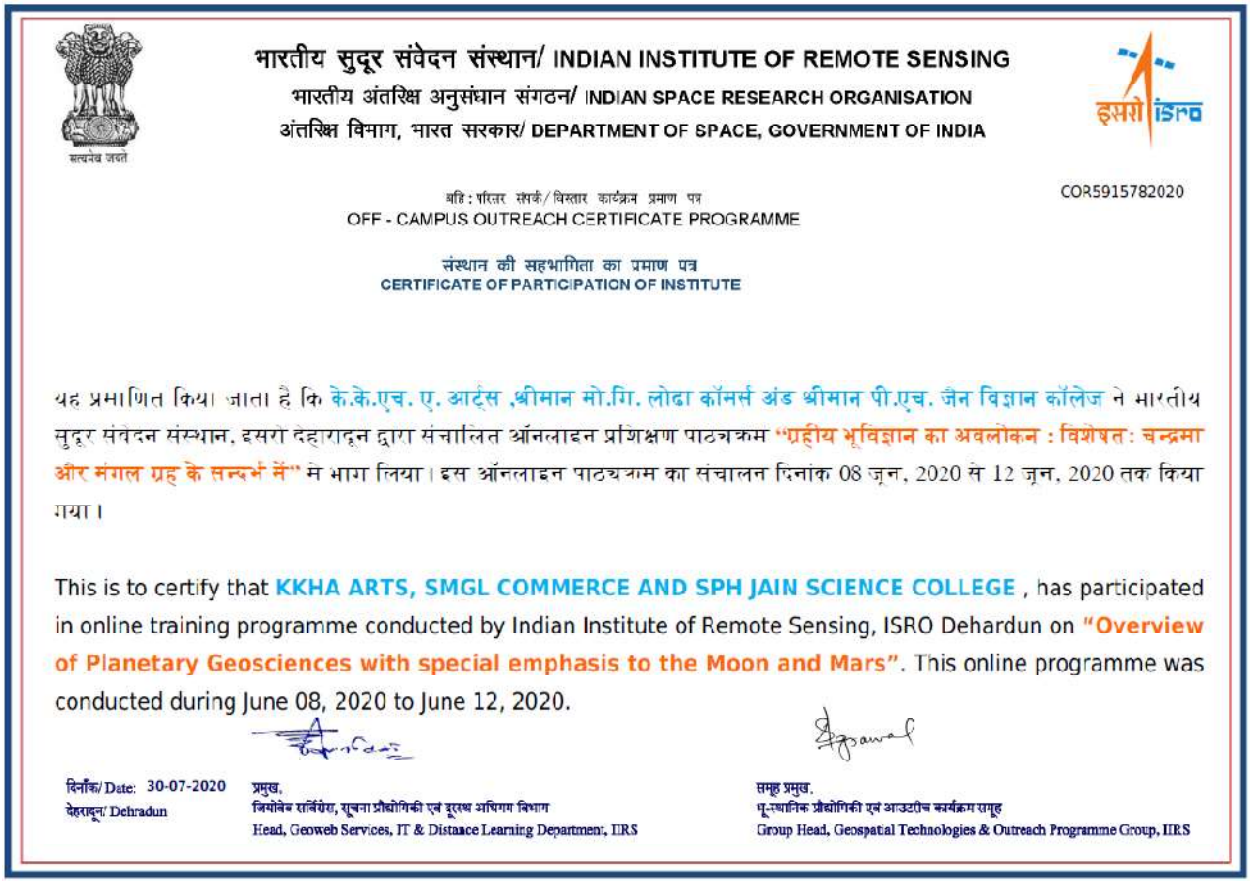
This is to certify that **DR. KUDNAR CHANGADEV KISAN**, working with **KKHA ARTS, SMGL COMMERCE AND SPH JAIN SCIENCE COLLEGE ,** has coordinated one day online workshop on **"Machine Learning for Remote Sensing Data Classification"** conducted by this institute on June 01, 2020

दिनाँक/ Date: 14-07-2020
देहरादून/ Dehradun

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

समूह प्रमुख,
भू-स्थानिक प्रौद्योगिकी एवं आउटरीच कार्यक्रम समूह
Group Head, Geospatial Technologies & Outreach Programme Group, IIRS

Figure 2. Certificate of the Appointment of Coordinator



भारतीय सुदूर संवेदन संस्थान/ INDIAN INSTITUTE OF REMOTE SENSING
भारतीय अंतरिक्ष अनुसंधान संगठन/ INDIAN SPACE RESEARCH ORGANISATION
अंतरिक्ष विभाग, भारत सरकार/ DEPARTMENT OF SPACE, GOVERNMENT OF INDIA

सत्यमेव जयते

इसरो ISRO

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

COR5915782020

संस्थान की सहभागिता का प्रमाण पत्र
CERTIFICATE OF PARTICIPATION OF INSTITUTE

यह प्रमाणित किया जाता है कि के.के.एच. ए. आर्ट्स ,श्रीमान मो.गि. लोढा कॉमर्स अंड श्रीमान पी.एच. जैन विज्ञान कॉलेज ने भारतीय सुदूर संवेदन संस्थान, इसरो देहरादून द्वारा संचालित ऑनलाइन प्रशिक्षण पाठ्यक्रम "ग्रहीय भूविज्ञान का अवलोकन : विशेषत: चन्द्रमा और मंगल ग्रह के सन्दर्भ में" मे भाग लिया। इस ऑनलाइन पाठ्यक्रम का संचालन दिनांक 08 जून, 2020 से 12 जून, 2020 तक किया गया।

This is to certify that KKHA ARTS, SMGL COMMERCE AND SPH JAIN SCIENCE COLLEGE , has participated in online training programme conducted by Indian Institute of Remote Sensing, ISRO Dehardun on "Overview of Planetary Geosciences with special emphasis to the Moon and Mars". This online programme was conducted during June 08, 2020 to June 12, 2020.

दिनाँक/ Date: 30-07-2020
देहरादून/ Dehradun

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

समूह प्रमुख,
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Group Head, Geospatial Technologies & Outreach Programme Group, IIRS

Figure 3. Institutional Letter for the course

2) A Certificate Course in Yoga

Objectives

1. To create awareness of health and physical fitness
2. To introduce the ancient philosophical values to the students
3. To popularize the theory and practice of Yoga.
4. To understand role of Yoga in overcoming stress related issues.

The Context

Yoga evokes the cultural and philosophical heritage of India. It reiterates the very Indian concept of individual development that includes the physical, intellectual, psychological and spiritual aspects. It integrates mind with body and leads to the higher forms of knowledge. It focusses upon relieving mind of what is undesirable. The practices of yoga have wider applicability. They can be used as a means of reducing stress and inculcating positive approach. The younger generation often fails to cope up with the challenges of the present world. The practices of Yoga such as meditation and Pranayam are helpful to boost their morale.

The Practice

The theory and practices of Yoga were imparted to a group of students. Students were familiarized with the basics of yoga- the Ashtangyoga, meditation and their application for maintaining health regulating stress related issues and overcoming common physical ailments.

Evidence of success

1. After conducting theory and practical sessions, an examination was conducted. Students performed Asanas and gave responses on their advantages. The course in a way helped to promote and popularize Yoga and cultural values also.

Problems Encountered

1. The students faced difficulty in understanding the theoretical concepts related to Yoga as Sanskrit and Yoga are not part of academic syllabi at UG/PG level. Students lacked background knowledge.