# **CERTIFICATE**





भारतीय अंतरिक्ष विङ्गान एवं प्रौद्योगिकी संस्थान (१व.म.आयोग अर्थानयम 1956 की घारा-३ के अयीन मानत विश्वविद्यालय घोषण) भारत सरकार, अंतरिक्ष विभाग, विलयमला पोस्ट, तिरुवनंतपुरम 695 547 भारत

INDIAN INSTITUTE OF SPACE SCIENCE AND TECHNOLOGY

(A Deemed to be University u/s 3 of the UGC Act, 1956) Government of India, Department of Space Valiamala P. O, Thiruvananthapuram 695 547 India

#### Certificate

This is to certify the project work *Improving the classification accuracy of coastal mangroves using Sentinel 2 data fused with Google Earth Images* is a bonafide work carried out by Mr. Adithly R. under my supervision and guidance from the Indian Institute of Space science and Technology (IIST) during March-May 2021. The work has not formed or a part of any thesis or project nor has been published before.

23/06/2021 Dr. Samir Mandal

िसार्क्षत्र हैं र सिन्द किरोजिए सिन्दिसी स्थान प्रदेश पूर्व कार्या है जिस्सा विशेषा प्रदेश एवं कार्या है कि किस विशेषा Department of Earth and Space Sciences बारतीय अंतरिका कि तहा एवं ग्लैड विशेषी संस्थान Indian Institute of Space Science and Technology

डांचरिल विभाग, भारत संस्कार Dept. of Space, Govt. of India विरुचनंतपुरम / Thiravananthapi**Dapactment of Earth and Space Science** 

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Dr. L Gnanappazham

Associate Professor

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# **Indian Institute of Space Science and Technology**

Department of Space, Government of India (A Deemed to be University u/s 3 of the UGC Act 1956) Valiamala P.O., Thiruvananthapuram - 695 547, KERALA

Tel: 0471-2568519 Email: rao@iist.ac.in

#### **CERTIFICATE**

This is to certify that the project work "exploring the impact of flood on the riparian vegetation using remote sensing: a case study on Bharathapuzha" is a bonafide work carried out by Ms. Angel P A (Reg. No. 190220002), St. Albers College, Ernakulam, Kerala under my supervision and guidance during February-April 2021, in partial fulfilment for the award of the degree of Master of Science in Space Science and Technology. The contents of this project report, in full or in parts, have not been submitted to any other Institute or University for the award of any degree or diploma.

Dr. Rama Rao Nidamanuri

Nama

Professor (Remote Sensing & Image Processing) Department of Earth and Space Sciences

Dated

## **CERTIFICATE**

This is to certify that the project "Morphological Analysis of Necho crater on the Far side of the Moon" embodies the work done by Anjana R, student of the Department of Space science and Technology, St. Albert's College (Autonomous), Ernakulam for a period during 2019-2021 under my guidance and supervision in partial fulfillment of the requirement for the award of the degree of Master of Science in Space science and Technology.

Dr. V J Rajesh

Associate Professor,

Department of Earth and Space Sciences

Indian Institute of Space science and Technology,

Thiruvananthapuram



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## Indian Institute of Space Science and Technology

Department of Space, Government of India (A Deemed to be University u/s 3 of the UGC Act 1956) Valiamala P.O., Thiruvananthapuram - 695 547, KERALA Tel: 0471-2568519 Fax: 0471 2568462

Email: rao@iist.ac.in

## **CERTIFICATE**

This is to certify that the project work "forest fragmentation analysis using remote sensing & GIS technique: a case study of Pathanamthitta district" is a bonafide work carried out by Ms. Anna Rincy. St. Albers College, Ernakulam, Kerala under my supervision and guidance during February-April 2021, in partial fulfilment for the award of the degree of Master of Science in Space Science and Technology. The contents of this project report, in full or in parts, have not been submitted to any other Institute or University for the award of any degree or diploma.

Dr. Rama Rao Nidamanuri

Mamalas

Professor (Remote Sensing & Image Processing)
Department of Earth and Space Sciences

Date: 18-06-2021



# Indian Institute of Space Science and Technology

Department of Space, Government of India (A Deemed to be University u/s 3 of the UGC Act 1956) Valiamala P.O., Thiruvananthapuram - 695 547, KERALA Tel: 0471-2568519 Fax: 0471 2568462

Email: rao@iist.ac.in

## **CERTIFICATE**

This is to certify that the project work "WATER QUALITY ESTIMATION IN VEMBANADU LAKE USING HYPERSPECTRAL REMOTESENSING" is a bonafide work carried out by Ms.GEETHU D (Reg. No: 1902200006), St. Albers College, Ernakulam, Kerala under my supervision and guidance during February-April 2021, in partial fulfilment for the award of the degree of Master of Science in Space Science and Technology. The contents of this project report, in full or in parts, have not been submitted to any other Institute or University for the award of any degree or diploma.

Dr. Rama Rao Nidamanuri

Namala

Professor (Remote Sensing & Image Processing)

Department of Earth and Space Sciences

Dated





#### भारतीय अंतरिक्ष विज्ञान एवं प्रौहोशिकी संस्थान

(वि.अ.आयांग अधिनियम 1956 की धारा-3 के अधीन मानित विश्वविद्यालय घोषित) भारत सरकार, अंतरिक्ष विभाग, वलियमला पोस्ट, तिरुवनंतपुरम 695 547 भारत

#### INDIAN INSTITUTE OF SPACE SCIENCE AND TECHNOLOGY

(A Deemed to be University u/s 3 of the UGC Act, 1956) Government of India, Department of Space Valiamala P. O., Thiruvananthapuram 695 547 India

### Certificate

This is to certify the project work *A Study on Coastal Mangroves Along the*West Coast of India is a bonafide work carried out by Ms. Kavitha K under my supervision and guidance from the Indian Institute of Space science and Technology (IIST) during March-May 2021. The work has not formed or a part of any thesis or project nor has been published before.

23/ ct/20 Dr. Samir Mandal

Head of the Departmentinent

पृथ्वी एवं अवस्थि विद्यान विभाग Department of Litth and Space Sciences भारतीय अंतरिक्ष विकास एवं द्वीयोगिकी संस्थान Indian institute of Space Science and Technology

अंतरिक्ष क्रियम, भारत महाना Dept. of Space, Govt. Department of Earth and Space Science बिरुवनंतपुरम / Thiruvananthapuri क्रिकेट कर्म

Dr. L Gnanappazham

**Associate Professor** 



## Indian Institute of Space Science and Technology

Department of Space, Government of India (A Deemed to be University u/s 3 of the UGC Act 1956) Valiamala P.O., Thiruvananthapuram - 695 547, KERALA Tel: 0471-2568519 Fax: 0471 2568462

Email: rao@iist.ac.in

### **CERTIFICATE**

This is to certify that the project work "Estimation of land surface temperature and analysis of urban heat island using remote sensing images in Ernakulum, Kerala" is a bonafide work carried out by Ms.Mithula T M (Reg. No: 1902200008), St. Albers College, Ernakulam, Kerala under my supervision and guidance during February-April 2021, in partial fulfilment for the award of the degree of Master of Science in Space Science and Technology. The contents of this project report, in full or in parts, have not been submitted to any other Institute or University for the award of any degree or diploma.

Dr. Rama Rao Nidamanuri

Professor (Remote Sensing & Image Processing)

Department of Earth and Space Sciences

Dated