

भारत सरकार
अन्तरिक्ष विभाग
राष्ट्रीय वायुमंडलीय अनुसंधान प्रयोगशाला
पो.बॉ.नं. 123, एसवीयू कैम्पस डाक घर
तिरुपति - 517 502
प्रयोगशाला : पो : गदंकी-517 112
पाकाला मंडल, चित्तूर जिला, आंध्र प्रदेश
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फैक्स : + 91 877 2248146 / + 91 8585 272018/21



GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
NATIONAL ATMOSPHERIC RESEARCH LABORATORY
P.B. No.123, P.O SVU Campus
Tirupati-517 502

Laboratory: P.O. Gadanki - 517 112
Pakala Mandal, Chittoor Dist., Andhra Pradesh
Phone: + 91 8585 272024, 222140
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Dr. Dattatreya Gujjar
Sr. Prof., Department of ECE
Alva's Institute of Engineering and Technology
Mijar, Moodabidri -574225

June 29, 2017

Sub: Letter of Joint collaboration under project of GNSS network by NARL

Sir,


This is to initiate collaboration and joint research work for application of GNSS and ionospheric/atmospheric studies using navigation satellites under an on-going activity of ground based GNSS receiver network at NARL.

A GNSS receiver make "Septentrio PolaRxS PRO" with a "Septentrio GNSS MF-Antenna" and cables was installed at your institute on 17 April 2017 for the aforementioned objective. The plan is to study the delay over the satellite signals due to Earth's Atmosphere and Ionosphere and its effect in precise applications areas. The continuous data from the GNSS receiver installed at your lab would be utilized on collaboration basis.

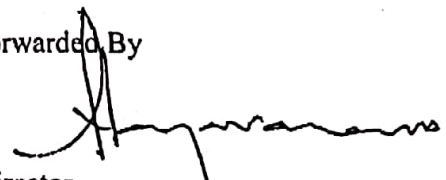
We wish that your institute also takes active part in using the data processing and research using the data recorded from this receiver at your site. Please note that the research publications using data from this receiver would be shared with you. Also, shall you wish to lead in specific scientific objectives under this plan and we assure you the best of our support.

This letter is intended to initiate the joint work and extend the operation of our GNSS receiver at your institute for 3 years. Please do the needful to support the installation of the receiver at your institute and send a response letter with similar intent. Thank you very much for your support to scientific research and development.

Sincerely yours


(Dr. Nirvikar Dashora)
Scientist/Engineer-SE
NARL, Gadanki

Forwarded By


Director
NARL, Gadanki

प्रो. ए. जयरामन / Prof. A. Jayaraman
निदेशक, एन.ए.आर.एल / Director, NARL
अन्तरिक्ष विभाग / Dept. of Space
भारत सरकार / Govt. of India
गदंकी / GADANKI-517 112

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Following project has been given to the students from AIET, Department of Computer Science and Engineering.

Team Members -

P Vighnesh Pejathaya	- 4AI16CS060	} Working at NARL
Manish B Shriyan	- 4AI16CS131	
Imran Khan	- 4AI16CS040	} Working at College on same Topic
Vignesh Shetty	- 4AI16CS124	

Project Title – Implementation of a Microcomputer board for automated operations of a field station

Project Description – A field station or a survey instrument requires sophisticated OS to run an applications for data log and control. This project aims to automate data recording from a GNSS receiver already installed at AIET campus and provide a remote control access using a microcomputer board. This device shall also help for survey mode operation of the GNSS receiver for creating a digital map of AIET campus. A Raspberry pi 3B+ board has been finalized after benchmarking and the specific requirement of GPS logger are planned to be tailored in the OS type and the desired hardware is provided by NARL at present. The project at AIET would lead to apply this microcomputer board for several other applications at AIET in other engineering domains like Media streamer, Arcade machine, Tablet computer, Home automation, Carputer, Robotics and also in raspberry pi based projects like microcontroller based devices.

डॉ. निर्विकार दशोरा / Dr. Nirvikar Dashora
वैज्ञानिक/इंजीनियर 'एस&ई'/Scientist/Engineer 'SE & SF'
राष्ट्रीय वायुमंडलीय अनुसंधान प्रयोगशाला
National Atmospheric Research Laboratory
अन्तरिक्ष विभाग/ DEPARTMENT OF SPACE
भारत सरकार/ GOVERNMENT OF INDIA
गादंकी/ GADANKI-517 112, आंध्रप्रदेश/A.P.

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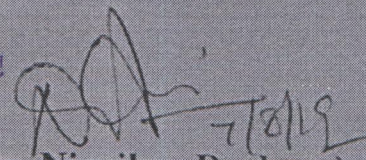


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CERTIFICATE

This is to certify that **P VIGNESH PEJATHAYA** bearing USN **4AL16CS060**, **MANISH B SHRIYAN** bearing USN **4AL16CS131**, **IMRAN KHAN** bearing USN **4AL16CS040**, **VIGNESH MANDARA SHETTY** bearing USN **4AL16CS124** of BE- Computer Science and Engineering studying at **ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY** have successfully completed their internship from **9th July to 8th August 2019** at **NARL Gadanki**. During their internship they have worked on "**Automated GNSS field receiver using microcomputer board and its use in mapping**" under the guidance of **Dr. Nirvikar Dashora, Sci. /Engr. SF** with full support from **Prof. Sayeesh, Project Coordinator, AIET**.


H.O.D.
Dept. Of Computer Science & Engineering
Alva's Institute of Engg. & Technology
Mishra, Andhra Pradesh - 517 225


(Dr. Nirvikar Dashora)

Sci. /Engr. -SF

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