

R.M.K COLLEGE OF ENGINEERING AND TECHNOLOGY

RSM NAGAR, PUDUVOYAL 601206



**DEPARTMENT OF
ELECTRONICS AND COMMUNICATION
ENGINEERING**

POST EVENT REPORT

**Webinar
on
Indian Regional Navigation Satellite
Systems**



SPEAKER

Mr. M. Arun Sundar

DRDO, Chennai



CONVENER

Dr. N. Gangatharan

Head of the Department - ECE



COORDINATORS

Mr. Babu M

Assistant Professor - ECE

Ms. Sandhiya G

Assistant Professor - ECE



02.05.2020

10.00 AM – 11.00 AM



EVENT POSTER:

RMK COLLEGE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

WEBINAR ON
INDIAN REGIONAL NAVIGATION SATELLITE SYSTEM

IRNSS
INDIA'S OWN GPS

02.05.2020
10:00 AM to 11:00 AM

Convenor :
Dr.N.GANGATHARAN
Professor & Head
Department of ECE
RMK CET

Organizers :
Mr. BABU M
AP/ECE, RMK CET

Ms.SANDHIYA G
AP/ECE, RMK CET

Mr. ARUN SUNDAR S
Scientist, DRDO

REGISTER HERE
<https://bit.ly/2KADBH7>

STAY HOME : STAY SAFE : LEARN ONLINE

INTRODUCTION:

In the overview of the COVID-19 situation in our state and the country, we have to take stringent lockdown measures for the safety of our family and society. But Education and Learning needs to be continued even in dire situations like the one we are enduring of late. The webinar focused on an independent regional navigation satellite system being developed by India.

SUMMARY:

IRNSS is an independent regional navigation satellite system being developed by India. It is designed to provide accurate position information service to users in India as well as the region extending up to 1,500 km from its boundary, which is the primary service area of IRNSS. Terms in IRNSS such as Navigation, Frames-Inertial coordinate frames types, Ellipsoid Gravity Anomaly, Geoid, datum, latitude, Longitude, Altitude, local navigation Frame, Navigation satellite Time, were clearly briefed by the speaker. He gave a real time example of rectangular coordinate system. From his wonderful talk we got an idea of The IRNSS System architecture both software and hardware. He gave a brief description about the application of IRNSS in mobile Phone. Finally speaker elaborated the differences between GPS and IRNSS.

An Extended Service Area lies between primary service area and area enclosed by the rectangle from Latitude 30 deg South to 50 deg North, Longitude 30 deg East to 130 deg East.

IRNSS will provide two types of services, namely, Standard Positioning Service (SPS) which is provided to all the users and Restricted Service (RS), which is an encrypted service provided only to the authorized users. The IRNSS System is expected to provide a position accuracy of better than 20 m in the primary service area.

Some applications of IRNSS are:

- ❖ Terrestrial, Aerial and Marine Navigation
- ❖ Disaster Management
- ❖ Vehicle tracking and fleet management
- ❖ Integration with mobile phones
- ❖ Precise Timing
- ❖ Mapping and Geodetic data capture
- ❖ Terrestrial navigation aid for hikers and travelers
- ❖ Visual and voice navigation for drivers

The IRNSS Signal-in-Space Interface Control Document (ICD Ver. 1.1) for Standard Positioning Service (SPS) is released to the public to provide the essential information on the IRNSS signal-in-space, to facilitate research & development and aid the commercial use of the IRNSS signals for navigation-based applications. [Download the Document](#)

IRNSS-1A spacecraft provides messaging service to users in the Indian region. The Signal-in-Space Interface Control Document (ICD Ver. 1.0) for Messaging services (IRNSS 1A) is released to the public to provide the essential information to facilitate the use of IRNSS1A Signal-in-space for development of receiver and associated application. Download Signal in Space Interface Control Document for NavIC messaging service ([ICD Ver 1.0 - June 2018](#) | [ICD Ver 1.0 - March 2019](#) | [ICD Ver 1.1 - July 2019](#)).

KEY HIGHLIGHTS:

- About IRNSS
- Rectangular Coordinate Systems
- IRNSS Architecture
- Applications of IRNSS
- Difference between IRNSS & GPS

The screenshot shows a Cisco Webex Meeting interface. The main content is a presentation slide titled "Navigation" with the following bullet points:

- Determination of the position, velocity, and, optionally, attitude of a vehicle in a reference coordinate system.
- Examples of reference coordinate systems include inertial or earth-fixed Cartesian coordinates, or latitude, longitude, and altitude relative to a reference ellipsoid.

The slide is viewed by Arun Sundar, as indicated by the "Viewing Arun Sundar's screen" label. The meeting interface includes a top menu (File, Edit, Share, View, Audio, Participant, Meeting, Help), a participant list on the right (87 participants), and a bottom toolbar with various controls. The Windows taskbar is visible at the bottom, showing the time as 10:08 AM.

AUDIENCE FEEDBACK WHICH WAS TAKEN IN GOOGLE FORM

IRNSS WEBINAR (Responses) ☆

File Edit View Insert Format Data Tools Form Add-ons Help All changes saved in Drive

100% \$ % ,0 .00 123 Default (Ari... 10 B I U A

SSN College of Engineering

Timesamp	Email Address	Full Name	College Name	Relevance of the Topics	Expertise of the Speaker	Content Delivery	Quality of the Program	Overall Feedback	How do you come to know about the program?	Any other Comments/Suggestions ?
5/10/2020 15:24:19	babucee@rmk.cet.ac.in	Babu M	R.M.K. College of Engine	4	4	4	4	4		
5/10/2020 15:34:47	kannanoc@gmail.com	Kannan K	R.M.K.College of Engines	4	4	4	4	4	Ad	Nice
5/10/2020 15:35:29	rmknsa2@gmail.com	Vijay Anandh. R	R. M. K college of Engine	4	4	4	4	4	Friends	Good
5/12/2020 12:12:13	lawerance@s.xcoe.edu.in	S Edwin Lawrence	St.Xavier's Catholic Collej	3	4	3	4	4	colleague	Informative
5/12/2020 12:12:22	inbamalarece@rmk.cet.ac.in	Dr T M INBA MALAR	RMK college of Engineeri	4	4	4	4	4	Whats App	
5/12/2020 12:12:31	adn.eca@rmk.ec.ac.in	DARWIN NESAKUMAR	R.M.K.ENGINEERING COLLEGE	4	4	4	4	4	Through College	
5/12/2020 12:12:32	praveenagowthami@gmail.com	Gowthami A	SSN College of Engineeri	3	3	3	3	3	Friend	
5/12/2020 12:12:53	jasminvijithraece@rmk.cet.ac.in	JASMINE VIJITHRA A	R M K COLLEGE OF EN	4	4	4	4	4	Department	Excellent
5/12/2020 12:13:02	reeja@s.xcoe.edu.in	Dr.Y.MARY REEJA	ST.XAVIER'S CATHOLIC	4	4	4	4	4	Through friends	Super
5/12/2020 12:13:03	seshavidhya@rmk.cet.ac.in	Sesha Vidhya S	RMK COLLEGE OF ENG	4	4	4	4	4	Friends	Excellent Presentation
5/12/2020 12:13:08	tamizhseki25@gmail.com	TamilSeli. S	RMD Engineering College	3	3	3	3	3	Whats app friends community	Good efforts.
5/12/2020 12:13:08	breniesekar@gmail.com	G BRENE SEKAR	R.M.D Engineering Colleg	4	4	4	4	4		
5/12/2020 12:13:25	rith17ec11@rmk.cet.ac.in	RITHIKA M	R.M.K COLLEGE OF EN	4	4	4	4	4	Through our college	Please organise many programs like this
5/12/2020 12:13:26	sathyarajee@rmk.cet.ac.in	SATHYARAJ P	RMK COLLEGE OF ENG	4	4	4	4	4	ECE RMKCET	Nil
5/12/2020 12:13:42	deepadasarathan78@gmail.com	Dr DEEPA. D	R.M.K COLLEGE OF EN	4	4	4	4	4	FRIENDS	NO
5/12/2020 12:13:48	poojasmural04@gmail.com	POOJA.M	RMD Engineering College	3	4	4	4	4		
5/12/2020 12:13:49	moni17ec078@rmk.cet.ac.in	T. Monisha	R. M. K College of Engine	4	3	4	3	3	Through my college.	This webinar was useful.
5/12/2020 12:13:51	sujiha@s.xcoe.edu.in	S.MARIA SERAPHIN SU	St.Xavers catholic Collej	3	3	3	3	3	COLLEGE	GOOD
5/12/2020 12:13:54	dive17ec031@rmk.cet.ac.in	Divakar M	R.M.K College of Engine	3	4	3	3	4	Referred by staff	No Suggestions