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## **Background**

- UN-OOSA identified India as host country for establishing the Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP) and the Centre was established in November, 1995
- Hosted by Government of India with Department of Space as nodal agency.
- CSSTEAP resolution made it responsible for capacity building
- Commitment is embodied in the Indian sloka, "ज्ञानंदानात वृध्यते"
- Made substantial progress in furthering knowledge and experience of space applications in the region





- CSSTEAP is committed to dissemination of technical information and capacity building
- Despite the serious challenges that the Covid-19 period put during the last more than 1 year, the following CSSTEAP activities were carried out
- We shall present here the activities that CSSTEAP-GNSS carried out during the Covid-19 crisis period during the last 1 ½ year.





#### **GNSS Course**

- Classes on Navigation since beginning of this century
- Started full term course from 2015: 9-month duration
- Conducted by Space Applications Centre, ISRO, Ahmedabad

Course	Year	Participants	Countries		
GNSS-01	2015-2016	09	04		
GNSS-02	2017-2018	12	05		
GNSS-03	2019-2020	15	08		

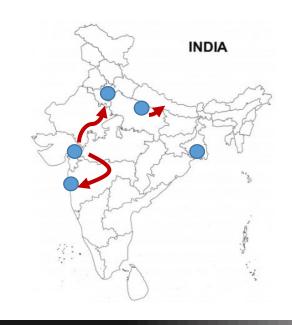




## Covid-19 Lockdown and its aftermath

- Lockdown imposed in the wake of Covid-19 pandemic from 25 March, 2020
- Evaluation of Participants' pilot project were done in online mode. Valedictory session conducted online.
- Students had to stay back. All amenities and allowances during excess stay were arranged by CSSTEAP
- Special medical check-up during the stay
- Safely sent back participants
- Some arrangements by Road with safety protocols to avail special repatriation flights









## Repatriation of GNSS 03 students

Country	Number of Students	Left Ahmedabad on	То	Mode	Details	Left India on	То	Mode	Details
Myanmar	1	18-05-2020	Delhi	By Road	SAC ISRO CAR	19-05-2020	Yangon	By Air	UB-7004
Indonesia	1	19-05-2020	Mumbai	By Road	Bus	22-05-2020	Jakarta	By Air	AI-1312
Nepal	1	26-05-2020	Lucknow	By Air	6E-244	26-05-2020	Gauriphanta	By Road	ISTRAC Car
Tajikistan	1	26-05-2020	Delhi	By Air	AI-532	28-05-2020	Dushanbe	By Air	SZ-110
Philippines	1	29-05-2020	Delhi	By Air	AI-532	30-05-2020	Manila	By Air	AI-1316
Bangladesh	1	31-05-2020	Kolkata	By Air	6E-962::6E-307	01-06-2020	Dhaka	By Air	AI-1230





## Online course on GNSS conducted

- A short course on GNSS was planned to be conducted in September, 2020
- It was designed, planned and about to be announced as the Covid-19 situation worsened in India and consequently lockdown was imposed.
- Announcement was indefinitely postponed







## Online course on GNSS conducted

- With the improvement in the situation, two realisations were made
  - (A) It is necessary to continue with the training and capacity building activities
  - (B) To offer the introductory course
- Announcement of online short course on "Introduction to Satellite Navigation"



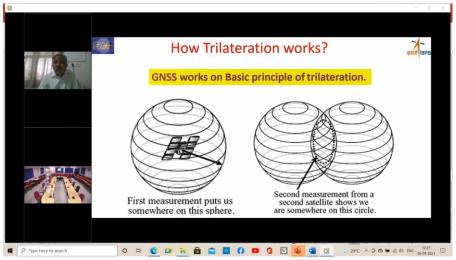




## Online course on GNSS conducted

- From September 13<sup>th</sup> to September 24<sup>th</sup>, 2021
- Good response obtained 67 valid applications
   received from 14 different countries; 56 selected
- Reading materials provided a-priori
- Matlab based online hands on practical work to give the deep insight of the concepts









## M.Tech Defence viva made online

- M.Tech students completing project could give defence viva online in presence of subject expert
- Students didn't have to wait for congenial situations for experts visit
- 3 CSSTEAP GNSS students have benefitted out of this over the last 1 year

