

## Ham Radio Workshops Conducted by Vigyan Prasar (State-wise List )

National media coverage of different countrywide ham radio outreaching activities of Vigyan Prasar can be referred to

at: [http://www.qsl.net/vu2msy//documentation/Ham\\_Radio\\_in\\_Vigyan\\_Prasar\\_In\\_National\\_Media/](http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/)

Name of State	No. of outreaching/workshop/training activities conducted
Uttarakhand	<p style="text-align: center;"><b>7</b></p> <p style="text-align: center;"><b>(3 State Level Training Programme)</b></p> <p>National Media Coverage of Vigyan Prasar's Ham Radio Activity:</p> <p>(i) <a href="http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/03HamRadioWorkshop_at_Jangal_Mangal_near_to_Dehradun.jpg">http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/03HamRadioWorkshop_at_Jangal_Mangal_near_to_Dehradun.jpg</a> [ <b>State Level Training Programme News</b> ]</p> <p>(ii) <a href="http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/05EMRI_UCOST_Vigyan_Prasar_ham_radio_workshop_AMAR_UJALA_News.jpg">http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/05EMRI_UCOST_Vigyan_Prasar_ham_radio_workshop_AMAR_UJALA_News.jpg</a></p> <p>(iii) <a href="http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/02Ham_Radio_Workshop_Doon_University_HindustanTimes_News.jpg">http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/02Ham_Radio_Workshop_Doon_University_HindustanTimes_News.jpg</a> [ <b>State Level Training Programme News</b> ]</p> <p>(iv) <a href="http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/04UCOSTVPDehradunham_Amar_Ujala.jpg">http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/04UCOSTVPDehradunham_Amar_Ujala.jpg</a></p> <p>(v) <a href="http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/Dainik_Jagaran_Vigyan_Prasar_HamRadio_Workshop_News.jpg">http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/Dainik_Jagaran_Vigyan_Prasar_HamRadio_Workshop_News.jpg</a></p> <p>(vi) <a href="http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/EMRI_UCOST_VP_HT_news.jpg">http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/EMRI_UCOST_VP_HT_news.jpg</a></p> <p>(vii) <a href="http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/DST_NewDelhi_HamRadio_Workshop_Doon_University_THE_PIONEER_News.jpg">http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/DST_NewDelhi_HamRadio_Workshop_Doon_University_THE_PIONEER_News.jpg</a></p> <p>(viii) <a href="http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/EMRI_Vigyan_Prasar_ham_radio_workshop_SHAH_TIMES_news.jpg">http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/EMRI_Vigyan_Prasar_ham_radio_workshop_SHAH_TIMES_news.jpg</a></p> <p>(ix) <a href="http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/Ham_Radio_In_VigyanPrasar_In_Doon_University.jpg">http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/Ham_Radio_In_VigyanPrasar_In_Doon_University.jpg</a></p> <p>(x) <a href="http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/Uttarakhand_ham_radio_training_news_Dream2047VigyanPrasar_Newsletter.jpg">http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/Uttarakhand_ham_radio_training_news_Dream2047VigyanPrasar_Newsletter.jpg</a> [ <b>State Level Training Programme News</b> ]</p> <p>(xi) <b>Shri Sandeep Baruah, Scientist-E, Vigyan Prasar attended as a Guest Speaker at Indian Institute of Technology Roorkee on the occasion of Cognizance 2009- annual technical festival of IIT Roorkee organized by students of electronics and computer department. A portion of his programme on Morse Code: Digital mode for interplanetary communication? Is at YOUTUBE: <a href="https://youtu.be/zXT08p80Sj0">https://youtu.be/zXT08p80Sj0</a></b></p>

	<p>(xii) At Bhimtal, Uttarakhand on February 18 &amp; 19, 2005 Ham Radio Workshop during Workshop on Science &amp; Technology for Development of Uttaranchal jointly with Jan Sikshan Santhan, Bhimtal  <a href="http://www.qsl.net/vu2msy/bhimtal/index.html">http://www.qsl.net/vu2msy/bhimtal/index.html</a></p> <p>(xiii) Training Session on Ham Radio Digital Communication technologies was conducted by Shri Sandeep Baruah, Scientist-E from Vigyan Prasar as a <b>Guest Lecturer at Lalbahadur Shastri National Academy of Administration (LBSNAA), Centre for Disaster Management (CDM), Mussoorie for the IAS probationary officers.</b> Shri Baruah received a letter of appreciation from Shri Rajesh Arya, IPS, Deputy Director (Sr.), CDM. Ref: <a href="http://www.qsl.net/vu2msy//documentation/Ham%20Radio%20in%20Vigyan%20Prasar%20In%20National%20Media/LBSNAA%20CDM%20Appreciation%20Letter%20from%20SHri%20Rajesh%20Arya%20IPS%20to%20Sandeep%20Baruah.jpg">http://www.qsl.net/vu2msy//documentation/Ham Radio in Vigyan Prasar In National Media/LBSNAA CDM Appreciation Letter from SHri Rajesh Arya IPS to Sandeep Baruah.jpg</a></p>
Himachal Pradesh	<p><b>4</b></p> <ol style="list-style-type: none"> <li>1. Bilaspur</li> <li>2. Shimla</li> <li>3. NIT Hamirpur [ <a href="https://hamnith.wordpress.com/workshop-on-practical-implementation-of-ham-radio/">https://hamnith.wordpress.com/workshop-on-practical-implementation-of-ham-radio/</a> ] In continuation to the ham radio workshop conducted at NIT Hamirpur, Himachal Pradesh last year to prepare the students to appear for the amateur radio licencing examination at International Monitoring Station, Ghitorni, New Delhi, a hands-on workshop was again conducted on 7th and 8th April, 2017 at NIT Hamirpur. Students were practically demonstrated ham radio antenna installation procedures [ Social Media reference of the "Video Documentation" available at public link: <a href="https://www.facebook.com/hashtag/vu2muenithamirpur?source=embed">https://www.facebook.com/hashtag/vu2muenithamirpur?source=embed</a> ]. During this worksop Shri Sandeep Baruah, Scientist-E, Vigyan Prasar was also accompanied and assisted by Shri Atanu Dasgupta, VU2ATN - Retired General Manager (Telecom, Powergrid) who as an accomplished ham with vast technical experience. Students assembled a very low power 7 MHz ham radio transceiver during the workshop. A "Ham Radio Society" was formed by the NIT Hamirpur students under our guidance. Web Ref: <a href="https://hamnith.wordpress.com/">https://hamnith.wordpress.com/</a></li> </ol>
Sikkim	<p><b>1</b></p> <p><b>State Level Training Programme</b></p> <p>From May 8 to 16, 2016 A State Level Ham Radio Training Programme was conducted by Vigyan Prasar for the tribal resource persons at Gangtok, Sikkim for 50 participants from 4 districts of Sikkim conducted at Sikkim State S&amp;T Council [Sikkim Science Centre]. The participants are now awaiting ham radio licence from the Ministry of Communications as passed the Amateur Stationh Operator's Certificate Exam conducted by Wireless Monitoring Station, Siliguri on May 25, 2017 and the results were declared on 24<sup>th</sup> July.</p>

	<p>Media Coverage:</p> <p>[a]  <a href="http://www.qsl.net/vu2msy/documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/Sikkim_Express_State_Level_Ham_Radio_Training_New_10th_May_2016.jpg">http://www.qsl.net/vu2msy/documentation/Ham Radio in Vigyan Prasar In National Media/Sikkim Express State Level Ham Radio Training New 10th May 2016.jpg</a>  [ <a href="https://tinyurl.com/y7696dnf">https://tinyurl.com/y7696dnf</a> ]</p> <p>[b]  <a href="http://www.qsl.net/vu2msy/documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/SikkimExpress Ham Radio Training News15May2016.jpg">http://www.qsl.net/vu2msy/documentation/Ham Radio in Vigyan Prasar In National Media/SikkimExpress Ham Radio Training News15May2016.jpg</a>  [ <a href="https://tinyurl.com/hts4pyv">https://tinyurl.com/hts4pyv</a> ]</p> <p>[c]  <a href="http://www.qsl.net/vu2msy/documentation/03HamRadioNewsSikkimTraining2016forFB.jpg">http://www.qsl.net/vu2msy/documentation/03HamRadioNewsSikkimTraining2016forFB.jpg</a>  [ <a href="https://tinyurl.com/he5xbz6">https://tinyurl.com/he5xbz6</a> ]</p>
Maharashtra	<p><b>1</b></p> <p>Vigyan Prasar's ham radio expertise is sought by technical institutes in establishing satellite ground stations for receiving and tracking of the Low Earth Orbit [LEO] ham satellites. Necessary guidance was provided to Satellite Ground-Station Team, <b>Atharva College Of Engineering, University of Mumbai</b>. They have now successfully installed the system which was acknowledged by AMSAT-North America. Atharva Satellite Ground-Station was inaugurated at The Atharva College of Engineering, University of Mumbai in India on March 15, 2012 where Shri Sandeep Baruah, Scientist-E from Vigyan Prasar was Guest Speaker. He conducted lecture and demonstration attended by the student team at Atharva College of Engineering along with the Indian Institute of Technology, Bombay for the communication, telemetry and data acquisition of their Pratham student satellite project. During the formal inauguration on March 15, 2012 Students at Atharva Satellite Ground-Station successfully communicated to Delhi using the Indian ham satellite VO-52 covering a distance of 850 Miles from Mumbai. Shri Baruah was acknowledged by the students for continuously guiding them in Linkdin/email messages as well as their website:  <a href="http://www.atharvacoe.ac.in/ground-station/">http://www.atharvacoe.ac.in/ground-station/</a>  [ <a href="https://tinyurl.com/yd4vs76m">https://tinyurl.com/yd4vs76m</a> ]</p> <p><b>To guide the students to receive Morse Code Telemetry Beacon from COEP built (College of Engineering Pune) ham radio satellite SWAYAM</b>, a demonstration video is uploaded by Shri Baruah, while he was receiving the signal from the roof of his residence in the night. He is guiding the students in different technical aspects. The video is at:  <a href="http://www.qsl.net/vu2msy/satellite/SWAYAM28June2016/SWAYAM_CW_28June2016Pass/SWAYAM_CW_28June2016Pass_player.html">http://www.qsl.net/vu2msy/satellite/SWAYAM28June2016/SWAYAM_CW_28June2016Pass/SWAYAM_CW_28June2016Pass_player.html</a></p>

Rajasthan	<p><b>3</b></p> <ol style="list-style-type: none"> <li>1. BITS Pilani [ A Youtube documentation of a portion of the workshop can be viewed at: <a href="https://youtu.be/zXT08p80Sj0">https://youtu.be/zXT08p80Sj0</a> ]</li> <li>2. Poornima College of Engineering, Jaipur</li> <li>3. Demonstration of Ham Radio Digital Communication at the National Festival of the Ham Radio Operators: <b>On 6th of November, 2016 a Technical Session was conducted by Shri Sandeep Baruah, Scientist-E at the 25th National Conference of the ham radio operators held at Mount Abu, Rajasthan</b> which was live streamed on Internet in YOUTUBE channel at the following link: <a href="https://youtu.be/7VacLQeFNRM">https://youtu.be/7VacLQeFNRM</a> Shri Baruah received a hearty felicitation from the organizers for his 25 years of voluntary committed and dedicated service promoting ham radio in India. He was felicitated by the Chairman of the Conference Dr. D. R. Kaarthikeyan, IPS. 400 hams from India and abroad attended the programme.</li> </ol>
Haryana	<p><b>15</b></p> <ol style="list-style-type: none"> <li>1. Shri Sandeep Baruah, Scientist-E is a Guest Faculty of <b>Haryana Institute of Public Administration (HIPA)</b>. During all the programmes related to Disaster Mitigation, Shri Baruah is training the Civil Defence Officials and other governmental employees. His name is included as an communication expert in the Directory of Resource Persons in Disaster Management brought out by HIPA [ <a href="http://nidm.gov.in/PDF/Pubs/DM_Dir_2014.pdf">http://nidm.gov.in/PDF/Pubs/DM_Dir_2014.pdf</a> ] A video documentation at: <a href="https://youtu.be/gT9nA65qGCK">https://youtu.be/gT9nA65qGCK</a></li> <li>2. Shri Baruah, Scientist-E, Vigyan Prasar attended as a Resource Person at <b>Hisar Haryana Agriculture University</b> National Workshop of NCC Cadets. Related National Media News of 1 Haryana R&amp;V NCC Sqn, Hisar participating in the workshop was published in Dainik Bhaskar : <a href="http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/06Hisar_Agricultural_University_NCC_Cadets_National_Workshop.jpg">http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/06Hisar_Agricultural_University_NCC_Cadets_National_Workshop.jpg</a></li> <li>3. Blue Bell Public School, Gurgaon</li> <li>4. Colonel's National Academy Public School, Gurgaon</li> </ol>
Chandigarh/ Punjab	<p><b>2</b></p> <ol style="list-style-type: none"> <li>1. Ham Radio Workshop at State S&amp;T Council Punjab</li> <li>2. A Technology Demonstration Programme was organized at Snow &amp; Avalanche Study Estt. (Research and Development Center), Ministry of Defence, DRDO, Chandigarh on Semptember 16, 2010 where the integration of Automatic Weather Station to ham radio transceivers for real time telemetry transmission of weather parameters via a simulated network of high altitude ham radio digital repeaters (Digipeaters) was</li> </ol>

	<p>demonstrated and a technical session was conducted. Ref: <a href="http://www.qsl.net/vu2msy//documentation/Ham Radio in Vigyan Prasar In National Media/SandeepBaruahVU2MUE at Snow and Avalanche Study Establishment DRDO Chandigarh.jpg">http://www.qsl.net/vu2msy//documentation/Ham Radio in Vigyan Prasar In National Media/SandeepBaruahVU2MUE at Snow and Avalanche Study Establishment DRDO Chandigarh.jpg</a></p>
<p>National Capital Territory of Delhi (NCT)</p>	<p><b>100</b>  <b>More than 100 outreaching programmes were conducted in NCT [New Delhi, Ghaziabad, Noida ]. Some of these are already listed in our previous reply.</b></p> <ol style="list-style-type: none"> <li>1. Outreaching activities are regularly conducted in the schools at different locations in Delhi</li> <li>2. Some of the Programmes conducted in NCT are documented at YOUTUBE: <ol style="list-style-type: none"> <li>(i) <a href="https://youtu.be/AL3yAeTa2rM">https://youtu.be/AL3yAeTa2rM</a></li> <li>(ii) <a href="https://youtu.be/pybf0jhCEwI">https://youtu.be/pybf0jhCEwI</a></li> <li>(iii) <a href="https://youtu.be/b5nteQPvVmo">https://youtu.be/b5nteQPvVmo</a></li> <li>(iv) <a href="https://youtu.be/N75rU7u7vxY">https://youtu.be/N75rU7u7vxY</a></li> <li>(v) <a href="https://youtu.be/oJU0aUcDZPU">https://youtu.be/oJU0aUcDZPU</a></li> <li>(vi) <a href="https://youtu.be/Zs0kIGbXUvU">https://youtu.be/Zs0kIGbXUvU</a></li> <li>(vii) <a href="https://youtu.be/JoURljAR-RY">https://youtu.be/JoURljAR-RY</a></li> <li>(viii) <a href="https://youtu.be/BKEPXIIfbUk">https://youtu.be/BKEPXIIfbUk</a></li> <li>(ix) <a href="https://youtu.be/2zLqKCAey5o">https://youtu.be/2zLqKCAey5o</a> International Disaster Management Exhibition 2008 Ham Radio Demonstration</li> <li>(x) <a href="https://youtu.be/zeQkDT3caII">https://youtu.be/zeQkDT3caII</a></li> <li>(xi) <a href="https://youtu.be/p5nWLDwrL7s">https://youtu.be/p5nWLDwrL7s</a></li> <li>(xii) <a href="https://youtu.be/sp4HciC0JuI">https://youtu.be/sp4HciC0JuI</a></li> </ol> </li> <li>3. Ham Radio training programmes are regularly conducted by Shri Sandeep Baruah, Scientist-e, Vigyan Prasar at <b>NIDM (National Institute of Disaster Management)</b></li> <li>4. NDTV interviewed Shri Sandeep Baruah, Scientist-E, Vigyan Prasar on 22 July 2014 giving extensive coverage of his conversation referring to Vigyan Prasar's role in promoting ham radio. <a href="http://gadgets.ndtv.com/telecom/features/the-first-social-network-chewing-the-rag-with-indias-ham-radio-operators-562745">http://gadgets.ndtv.com/telecom/features/the-first-social-network-chewing-the-rag-with-indias-ham-radio-operators-562745</a> [ <a href="https://tinyurl.com/gwmxqqd">https://tinyurl.com/gwmxqqd</a> ]</li> <li>5. NDTV again interviewed Shri Baruah during the Uttarakhand Disaster Communication related to role of ham radio in disaster management; the News is in Youtube: <a href="https://youtu.be/1ObdwqohRnk">https://youtu.be/1ObdwqohRnk</a> Screenshot grab of the news: <ol style="list-style-type: none"> <li>(1) <a href="http://www.qsl.net/vu2msy/documentation/Ham Radio in Vigyan Prasar In National Media/HamRadio NDTV News Vigyan Prasar Reference.jpg">http://www.qsl.net/vu2msy/documentation/Ham Radio in Vigyan Prasar In National Media/HamRadio NDTV News Vigyan Prasar Reference.jpg</a></li> <li>(2) <a href="http://www.qsl.net/vu2msy/documentation/Ham Radio in Vigyan Prasar In National Media/HamRadioPromotionalActivity_of_Vigyan Prasar Featured on NDTV.jpg">http://www.qsl.net/vu2msy/documentation/Ham Radio in Vigyan Prasar In National Media/HamRadioPromotionalActivity_of_Vigyan Prasar Featured on NDTV.jpg</a></li> </ol> </li> <li>6. The <b>Times of India Bangalore</b> [ Bangalore Times ] also interviewed Shri Baruah and quoted him related to role of ham radio in disaster</li> </ol>

management:

[http://www.qsl.net/vu2msy/documentation/Ham Radio in Vigyan Prasar In National Media/Bangalore Times April 27 2015 News on Ham radio in Emergency Communication.jpg](http://www.qsl.net/vu2msy/documentation/Ham%20Radio%20in%20Vigyan%20Prasar%20In%20National%20Media/Bangalore%20Times%20April%2027%202015%20News%20on%20Ham%20radio%20in%20Emergency%20Communication.jpg)

7. In another article that came out in Seven Sisters Post Shri Baruah was quoted for his role in promoting ham radio in India:

[http://www.qsl.net/vu2msy/documentation/Ham Radio in Vigyan Prasar In National Media/01Seven Sisters Post February 03 2012 Article by Reema Gowalla .jpg](http://www.qsl.net/vu2msy/documentation/Ham%20Radio%20in%20Vigyan%20Prasar%20In%20National%20Media/01Seven%20Sisters%20Post%20February%2003%202012%20Article%20by%20Reema%20Gowalla.jpg)

8. Emergency communication Mock drill exercises were coordinated by Vigyan Prasar at the behest of NDMA [previously NDM Division] . An emergency communication mock drill exercise conducted by Vigyan Prasar at the behest of Ministry of Home Affairs was able to draw international attention. The activity was highlighted/featured in America's most popular **Amateur Radio Magazine "CQ" in its October 2004 issue citing our role and its importance specifically mentioning Shri Baruah's coordination.** The PDF copy of the article can be accessed at

<http://www.qsl.net/vu2msy/documentation/CQAmericaCitingHamRadioInVigyanPrasar.pdf>

[ <https://tinyurl.com/ya6tgwvj> ]

9. Shri Sandeep Baruah, Scientist-E, Vigyan Prasar attended as the 'National Expert' at the **IEEE International Seminar on Ham Radio titled "INTERNATIONAL WORKSHOP ON AMATEUR RADIO COMMUNICATION & COMPUTING IN EDUCATIONAL ENVIRONMENT" 14th & 15th SEPTEMBER 2016 at ABES Engineering College in Ghaziabad** ; the IEEE communication newsletter cited him acknowledging his skill; The "International Expert" commented in this newsletter: QUOTE "The lecture attracted many female students. As I noticed, Indian schooling is not worried about any decrease of interest for technical education for young women. The workshop was combined with a practical session performed by a skilled radio amateur, Sandeep Baruah, VU2MUE, scientist-E with Vigyan Prasar, an autonomous body under the Department of Science & Technology, Government of India." UNQUOTEd from <http://gcn.comsoc.org/amateur-radio-lectures-poland-and-india> [ <https://tinyurl.com/yeh53tzt> ]

ABES Engineering College News citing me and Vigyan Prasar:

[http://gn.dronacharya.info/Amateur Radio jan 2016.asp#ad-image-0](http://gn.dronacharya.info/Amateur%20Radio%20jan%202016.asp#ad-image-0)

[ <https://tinyurl.com/ydg2kmoe> ]

10. THE TRIBUNE 2004 Tsunami Disaster Relief Ham Radio Operation News. They specifically cited the contribution of Sandeep Baruah during the Tsunami Emergency Communication

<http://www.tribuneindia.com/2004/20041229/delhi.htm>

[ <https://tinyurl.com/ya9wwewe> ]

The scanned printed version of the news is at:



[http://www.qsl.net/vu2msy/documentation/Tsunami\\_operation\\_news.gif](http://www.qsl.net/vu2msy/documentation/Tsunami_operation_news.gif) [

<https://tinyurl.com/yb7o5wam> ]This was highlighted and

The CBSE Class X text book can be downloaded from:

<http://cbse.nic.in/DM%20ENGLISH.pdf> [ Page No 36 ] where Shri Baruah's contribution is specifically mentioned.

11. NSIT New Delhi Ham Radio Workshop

<http://www.qsl.net/vu2msy/HamRadioDigitalFusionTechnologyDemonstrationatNetajiSubhasInstituteofTechnology.html>

[ <https://tinyurl.com/j4edrnf> ]

12. On April 12, 2016, Shri Sandeep Baruah, Scientist-E attended as a Guest Speaker and expert in ham radio at Russian Embassy Cultural Centre on the occasion of Yuri Gagarin [who was a ham] Day. Demonstration of Digital communication was given and there was a video show in which the following video was played to make the participant's aware about NASA's ham radio satellite ARISSat-1 programme which was named KEDAR [radio call-sign of Late Yuri Gagarin ] to commemorate the space flight of Yuri Gagarin. In this video it was demonstrated by him how amateur radio experimenters receive images transmitted from space. The video link:

<https://youtu.be/HTbnHZWDHUI>

The following news highlights my presentation:

[https://in.rbth.com/arts/culture/2016/04/14/rcsc-lauds-gagarins-pioneering-flight-and-achievements\\_584755](https://in.rbth.com/arts/culture/2016/04/14/rcsc-lauds-gagarins-pioneering-flight-and-achievements_584755)

QUOTE: "*Among the speakers were N. Ratnasree, Director, Nehru Planetarium, Biman Basu, retired scientist, Council for Scientific and Industrial Research, and Sandeep Baruah, Scientist "E", Vigyan Prasar, Department of Science & Technology. A gathering comprising science enthusiasts, students and social activists, attended the function...Describing the wider possibilities and vast potential of scanning the world utilising the service of amateur radio, Baruah pinpointed the access and exposure that a common man could achieve in scientific observation by establishing contact with cosmonauts and astronauts.*" UNQUOTE [

<https://tinyurl.com/ycmhmg2k> ]

13. On **10th July, 2017**, **Army officials of the 21 Signal Group** visited Vigyan Prasar's ham radio facility deputed by Major Abhishek Dwivedi for his officials to be acquainted with amateur radio communication system and the possibility of incorporating ham radio in the Armed forces as a second line of Communication.

14. A Ham Radio Kit Building Workshop and Ham Radio Demonstration Programme was organized at Apeejay School Saket on **10th August, 2017**. During the kit building workshop the following instructional material was given to the kids:

<http://www.qsl.net/vu2msy/homebrew/FMToyTransmitterAssemblyInstructionsEduSAT2017.pdf>

[ <https://tinyurl.com/yb6rqy35> ]

- 15.** Shri Sandeep Baruah, Scientist-E, Vigyan Prasar participated as an expert at the National Programme on "**Communications in Emergencies and Disaster Situations** organized by National

	<p><b>Institute of Disaster Management NIDM) jointly with Directorate General of Doordarshan on January 18, 2017.</b> Shri Baruah practically demonstrated different ham radio technologies relevant to emergency communication for which a temporary ham radio cross-band repeater system was installed at NIDM as a relay station to demonstrate accessing of Delhi Ham Radio Repeater Station VU2DLR located at Vigyan Prasar and local VHF Line-of-Sight communication was established with another ham radio station at Gurgaon operated by retired General Manager of Powergrid Shri Atanu Dasgupta, VU2ATN, who addressed the participants as a part of the demo. <b>Ankur Puranik, VU2AXN, the Chief Commanding Officer (Engineering &amp; Wireless) of Disaster Amateur Radio Emergency Services (DARES), Mumbai Civil Defence</b> at NIDM <i>live streamed</i> a portion of Shri Baruah's presentation/demonstration which can be viewed at: <a href="http://tinyurl.com/hvydvqw">http://tinyurl.com/hvydvqw</a></p> <p><b>16.</b> A Session on Ham Radio was conducted by Shri Sandeep Baruah, Scientist-E at Haryana Institute of Public Administration as Guest Faculty on <b>9th May, 2017</b> where 50 Civil Defence Officials were introduced to ham radio and preliminary training provided.</p> <p><b>17.</b> An activity book on "Radio Communication" for hands-on kit building workshop was brought out by Vigyan Prasar authored by Shri Sandeep Baruah, Scientist-E, Vigyan Prasar. During the EduSAT Summer Science Festival 2017. A radio transmitter kit building workshop was conducted at Vigyan Prasar from June 14 to June 21, 2017, where students were trained hands-on to assemble a toy radio transmitter. Students were provided with the electronic component and other resources along with the guidebook on radio communication and the following instructional material: <a href="http://www.qsl.net/vu2msy/homebrew/FMToyTransmitterAssemblyInstructionsEduSAT2017.pdf">http://www.qsl.net/vu2msy/homebrew/FMToyTransmitterAssemblyInstructionsEduSAT2017.pdf</a> [ <a href="https://tinyurl.com/yb6rqy35">https://tinyurl.com/yb6rqy35</a> ]</p>
Uttar Pradesh	<p><b>7</b></p> <ol style="list-style-type: none"> <li>1. IIT Kanpur ( <b>3</b> workshops on ham radio was conducted by Shri Sandeep Baruah, Scientist-E, Vigyan Prasar at IIT Kanpur as Guest Lecturer ) A detailed report for one of the programmes at: <a href="http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/IIT_Kanpur_Techkriti_2010Annual_Technical_Festival.pdf">http://www.qsl.net/vu2msy//documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/IIT_Kanpur_Techkriti_2010Annual_Technical_Festival.pdf</a> <i>National Media Coverage</i> of the IIT Ham Radio workshop: <a href="http://www.qsl.net/vu2msy/documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/04HindustanTimes_IIT_Kanpur_Ham_Report.jpg">http://www.qsl.net/vu2msy/documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/04HindustanTimes_IIT_Kanpur_Ham_Report.jpg</a></li> <li>2. Gwalior Glory Public School, Gwalior</li> <li>3. St. Merry Public School, Gwalior</li> <li>4. Lucknow (During the Vigyan Rail Mobile Science Exhibition in 2004)</li> <li>5. During the National Ham Radio Conference (popular as Hamfest India) 2013 held at Gwalior, Shri Sandeep Baruah, Scientist-E, Vigyan Prasar</li> </ol>



	<p>deliberated a demonstration and presentation on ham radio digital communication to an audience of nearly 150 participants from across the country and neighbouring countries like Nepal, Bangladesh etc.</p>
Andhra Pradesh/Telangana	<p><b>2</b></p> <ol style="list-style-type: none"> <li>Hyderabad (A Ham Radio Workshop for Sree Devi Engineering College students was conducted by Shri Sandeep Baruah, Scientist-E, Vigyan Prasar at National Institute of Amateur Radio – NIAR. PDF Newsletter reference: <a href="http://www.niar.org/images/ham-news/pdf/2013MarApr.pdf">http://www.niar.org/images/ham-news/pdf/2013MarApr.pdf</a> <a href="http://www.qsl.net/vu2msy/documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/Hyderabad_Programme_for_Sree_Devi_Eng_College.jpg">http://www.qsl.net/vu2msy/documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/Hyderabad_Programme_for_Sree_Devi_Eng_College.jpg</a></li> <li>A workshop on Ham Radio Digital Communication was organized at Vignan Techno SPAES School, Huzur Nagar, Nalgonda (erstwhile Andhra Pradesh now Telangana) on 27<sup>th</sup> April, 2013. Related News link: <a href="http://www.qsl.net/vu2msy/documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/SPAES_School_Nalgonda_Andhra_Pradesh_Telangana.jpg">http://www.qsl.net/vu2msy/documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/SPAES_School_Nalgonda_Andhra_Pradesh_Telangana.jpg</a></li> </ol>
Tamil Nadu	<p><b>1</b></p> <p>During <b>graVITas 2014 - An International Knowledge Carnival at Vellore Institute of Technology University, Vellore [VIT University, Vellore]</b> A ham radio technology programme was organized at VIT University, Vellore on 27th September, 2014 for the students of Electronics &amp; Communications Engineering Department of Vellore Institute of Technology University, Vellore on the occasion of their Technical Festival graVITas 2014. Vigyan Prasar official Shri Sandeep Baruah attended and organized the programme as a Guest Speaker invited under the "<i>Uncommon Indians</i>" category]. APRS -A US Naval Academy ham radio technology was demonstrated to the students. It was demonstrated how a map on a laptop can be changed by pressing a radio button remotely which cannot be done by a smartphone. Morse Code technology was also demonstrated as an alternative to digital modes of communication. Social Media reference: <a href="https://www.facebook.com/media/set/?set=a.10202898428116810.1073741880.1085772931&amp;type=1&amp;l=14204a88ef">https://www.facebook.com/media/set/?set=a.10202898428116810.1073741880.1085772931&amp;type=1&amp;l=14204a88ef</a>  [ <a href="https://tinyurl.com/y8ybk5oa">https://tinyurl.com/y8ybk5oa</a> ]</p> <p>VIT University Vellore News in United Kingdom ham radio portal: <a href="http://www.southgatearc.org/news/2014/september/ham_radio_at_gravitas_2014.htm#.Vby5WvIhQZw">http://www.southgatearc.org/news/2014/september/ham_radio_at_gravitas_2014.htm#.Vby5WvIhQZw</a> [ <a href="https://tinyurl.com/y7sf2w6l">https://tinyurl.com/y7sf2w6l</a> ]</p>
Assam	<p><b>8</b></p> <ol style="list-style-type: none"> <li>Ham Radio Emergency Communication System was demonstrated by Shri Sandeep Baruah, Scientist, Vigyan Prasar at <b>Guwahati Medical College</b> during a workshop on ham radio:</li> </ol>

	<p><a href="http://www.qsl.net/vu2msy/documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/The_Assam_Tribune_HamRadio_News.jpg">http://www.qsl.net/vu2msy/documentation/Ham_Radio_in_Vigyan_Prasar_In_National_Media/The_Assam_Tribune_HamRadio_News.jpg</a></p> <ol style="list-style-type: none"> <li>Two workshops were conducted by Shri Baruah at <b>IIT Guwahati</b>. Related News: <a href="http://www.qsl.net/vu2msy/IITWorkshop.htm">http://www.qsl.net/vu2msy/IITWorkshop.htm</a></li> <li>Girijanda Engineering College</li> <li>Assam Police Radio Organization HQ ( 2)</li> <li>Royal Global Engineering College/School</li> </ol>
West Bengal	<p><b>2</b></p> <ol style="list-style-type: none"> <li>A Ham Radio workshop was conducted at Birla Industrial and Technological Meuseum Kolkata on April 18, 2015 where 150 students from different schools participated. Study materials were provided to the students.</li> <li>Shri Sandeep Baruah, Scientist-E from Vigyan Prasar was invited as a <b>"Guest of Honour" to the East India Ham Conference 2017 held at Kolkata, Mandarmoni Beach, West Bengal on 28 January, 2017</b> -organized jointly by Amateur Radio Convention and Conference Samity (ARCCS) Kolkata and by Society Of Radio Amateurs (SORA), Patna -- two ham radio promoting societies. <b>A technical session was conducted by Shri Baruah where 100 hams from different states from East India participated.</b></li> </ol>
International Visibility/Promotional activity at International Level	<p><b>Apart from outreaching programmes conducted across the country Vigyan Prasar is also Internationally visible for its contribution to promoting ham radio (Amateur Radio)</b></p> <ol style="list-style-type: none"> <li>A Research Paper by NSA's [ <b>National Security Agency, USA</b> ] <b>Pacific Northwest National Laboratory</b> titled <b>'Radio noise: Global economic and political impact'</b> cited research work of Shri Sandeep Baruah, Scientist-E, Vigyan Prasar in their paper. His paper reference cited by them can be found at page no. 28, ref no. [ 32] Their PDF newsletter titled <b>"The Next Wave"</b> [ 20th Anniversary Issue Vol 20   no. 1   2013 ] citing me can be accessed at:  <a href="https://www.nsa.gov/resources/everyone/digital-media-center/publications/the-next-wave/assets/files/TNW-20-1.pdf">https://www.nsa.gov/resources/everyone/digital-media-center/publications/the-next-wave/assets/files/TNW-20-1.pdf</a>  [ Ref to my work at Page No. 28 ]  [ <a href="https://tinyurl.com/yb3hxqtp">https://tinyurl.com/yb3hxqtp</a> ]</li> <li>Shri Baruah's Research Work in Digital Communication was cited in an international paper  <a href="http://www.researchgate.net/publication/268100793_A_Low_Energy_APRS-IS_Client-Server_Infrastructure_Implementation_using_Raspberry_Pi">http://www.researchgate.net/publication/268100793_A_Low_Energy_APRS-IS_Client-Server_Infrastructure_Implementation_using_Raspberry_Pi</a>  [ <a href="https://tinyurl.com/zuds57u">https://tinyurl.com/zuds57u</a> ] by the students of Faculty of Electrical Engineering, University of Sarajevo and Faculty of Engineering and Information Technologies, International Burch University Sarajevo, Bosnia and Herzegovina in their Research Paper <b>"A Low Energy APRS-IS Client-Server Infrastructure Implementation using Raspberry Pi"</b>. The <b>"Rationale" of their project</b> is said to be from his research work cited in <b>Page No. 2 of the paper for the</b></li> </ol>

22<sup>nd</sup> Telecommunications Forum (TELFOR) Conference at Belgrade, Serbia.

3. **A full Length Research Paper on Ham Radio presented by Shri Sandeep Baruah, Scientist-E, Vigyan Prasara is published in the final compendium brought out by TIFAC, DST.** The paper was accepted and presented at the 6th Annual Conference of the International Society for Integrated Disaster Risk Management IDRiM -TIFAC 2015 on "Disaster Risk Reduction: Challenges and Opportunities for Sustainable Growth" held from 28-30 October 2015, New Delhi [  
[http://www.tifac.org.in/index.php?option=com\\_content&view=article&id=963:6th-annual-conference-of-the-international-society-for-integrated-disaster-risk-management&catid=49:latest-news&Itemid=17](http://www.tifac.org.in/index.php?option=com_content&view=article&id=963:6th-annual-conference-of-the-international-society-for-integrated-disaster-risk-management&catid=49:latest-news&Itemid=17)

]  
<https://tinyurl.com/y8buuren>

The "Research Paper" Entitled "Radio Based Approach for Disaster Risk Reduction and Management Using Automatic Packet Reporting System and Ham Radio (Amateur Radio) Digital Communication Technologies" was accepted by a panel of International Experts of IDRiM (International Society for Integrated Disaster Risk Management) and the abstract was earlier published in their compendium

<http://idrimjournal.com/> The seminar was sponsored by Ministry of Science & Technology, Govt. of India, ISRO, United Nations, Ministry of External Affairs, Oxfam and organized by TIFAC (Technology Information, Forecasting and Assessment Council, Department of Science and Technology, Govt. of India <http://www.tifac.org.in/>) The paper was presented along with technical demonstration. A copy of the paper can be accessed at: [http://www.academia.edu/27256984/A\\_PRACTICAL\\_RADIO\\_AND\\_INTERNET\\_BASED\\_APPROACH\\_FOR\\_DISASTER\\_RISK\\_REDUCTION\\_AND\\_MANAGEMENT\\_THROUGH\\_GEOSPATIAL\\_INFORMATION\\_STUDIES\\_USING\\_AUTOMATIC\\_PACKET\\_REPORTING\\_SYSTEM\\_APRS](http://www.academia.edu/27256984/A_PRACTICAL_RADIO_AND_INTERNET_BASED_APPROACH_FOR_DISASTER_RISK_REDUCTION_AND_MANAGEMENT_THROUGH_GEOSPATIAL_INFORMATION_STUDIES_USING_AUTOMATIC_PACKET_REPORTING_SYSTEM_APRS)

[ <https://tinyurl.com/y8qzeeuy> ]

**Nearly 250 ham radio outreaching activities were conducted by Vigyan Prasara during the last 18 year.**