

प्रसार भारती / PRASAR BHARATI  
(भारत का लोक सेवा प्रसारक/India's Public Service Broadcaster)  
राष्ट्रीय प्रसारण एवं मल्टीमीडिया अकादमी, दिल्ली  
National Academy of Broadcasting and Multimedia  
किंग्सवे, दिल्ली-110009 / Kingsway, Delhi-110009  
nabmctc.tt@prasarbharati.gov.in

**File No:** TR-13016(10)/1/2024-TRAINING CELL(T)-NABM DELHI  
(Course Code- D24-T009)

Dated: 08.05.2024

CIRCULAR

**Subject: Summer Training programme for Engineering Students.**

National Academy of Broadcasting and Multimedia (NABM), Delhi invites nominations from eligible Engineering students for summer training programme in broadcasting field as per part of their curriculum. The detail of the programme is as follows:

Objective	:	Exposure of Broadcasting Technologies to new generation
Duration	:	Four Weeks
Period	:	10.06.2024 to 05.07.2024
Eligibility	:	Engineering Students of Second & Third year (B.E./B. Tech)/Diploma in Electronics/Electronics and Communication, and of similar streams
Fee	:	Rs. 4,000/- plus 18% GST = Rs. 4,720/- in advance
Mode of payment	:	Online transfer in Prasar Bharati Bank Account No. 10525472189 (IFSC Code SBIN0007627), State Bank of India, Nirankari Colony, Delhi-110009;
Venue	:	<ul style="list-style-type: none"><li>• National Academy of Broadcasting and Multimedia, Kingsway, Delhi-</li><li>• Google map location</li></ul> <p style="text-align: center;"><a href="https://g.co/kgs/pNSRtyw">https://g.co/kgs/pNSRtyw</a></p>
Course Content	:	<p>The course broadly covers the following technical aspects involved broadcasting of content through Radio and Television media-</p> <ul style="list-style-type: none"><li>• Radio Studios</li><li>• Television Studios</li><li>• Radio Transmitters</li><li>• Television Transmitters</li><li>• Satellite Broadcasting (Earth Station and Direct-to-Home Setups)</li></ul> <p>The details of the technical topics to be covered in the training are at Annexure – A to this circular.</p>
Other terms and conditions	:	<ul style="list-style-type: none"><li>• In case of online payment of fee, the details of confirmation with transaction along with the contact details of nominee may be sent to NABM on e-mail nabmctc.tt@prasarbharati.gov.in on or before 31.05.2024.</li><li>• The fee once paid is not refundable.</li><li>• It is mandatory for the participant to attend the training on all days, as per the schedule of the training. The completion certificate will be</li></ul>

		<p>awarded only to those candidates who will participate actively &amp; regular in the training.</p> <ul style="list-style-type: none"><li>Interested students may send nomination by Google form link <a href="https://forms.gle/gn6Z6wBUWtxqShUL6">https://forms.gle/gn6Z6wBUWtxqShUL6</a></li><li>For further information, please feel free to contact us through email nabmctc.tt@prasarbharati.gov.in</li></ul>
About NABM	:	<p>National Academy of Broadcasting and Multimedia (NABM) is the apex in-house training Academy of All India Radio &amp; Doordarshan under Prasar Bharati. NABM primarily caters to the training needs of personnel of Prasar Bharati. The academy has two campus one at Delhi and the other at Bhubaneswar and one regional academy (RABM) functioning at Shillong. The Academy conducts around 125 courses every year and imparts training to large number of broadcast professionals. Broadcasters/ media professionals from broadcasting organizations of the neighbouring countries also regularly participate in the academy's training programmes. It also organizes training in collaboration with AIBD for its member organizations.</p>
Contacts	:	<p>Shri Prakash Veer, DDG(E) – +91-11- 20871801 Shri Ravinder Kumar, DD(E) - +91 9968411528 email: <a href="mailto:ravinderkumar@prasarbharati.gov.in">ravinderkumar@prasarbharati.gov.in</a></p>



(रविन्द्र कुमार/Ravinder Kumar)  
उप निदेशक (अभि.)/Dy. Director (Engg)  
कृते अपर महानिदेशक (प्रशिक्षण)/for Additional Director General (Trg.)

Radio and TV transmission (Analogue as well as Digital), various standards, Satellite Communication, Link Budget Calculations, C/No, Direct-to-Home (DTH), Earth station, etc.

Radio and Television Studio: Microphones, Audio-Video Consoles, Vision Mixer, Production Switcher, TV Studio Lighting, Camera optics, Camcorders etc.

- Measuring Equipment: Spectrum Analyzer, Site Master, DVB-T2 Analyzer, Digital Waveform Monitor, Audio Analyzer, Vector Impedance Meter, etc.
- Modern Trends in Broadcasting: New Media, Cloud, OTT, 5G, Social Media & Broadcasting, 4K & 8K, File based workflow in TV and radio studios, immersive video AR & VR (augmented reality and virtual reality) etc.
- Air Conditioning System and Maintenance.
- Functioning of TV camera: most television studio cameras stand on the floor, usually with pneumatic or hydraulic mechanisms called pedestals to adjust the height and position in the studio. The cameras in a multiple-camera setup are controlled by a device known as a camera control unit (CCU), to which they are connected via a Triax, Fibre optic or the almost obsolete multicore cable. The CCU, along with Genlock and other equipment, is installed in the central apparatus room (CAR) of the television studio. A remote control panel in the production control room (PCR) for each camera is then used by the vision engineer(s) to balance the pictures after the training, participants will be able to understand the functioning of TV camera and its setup.
- Functioning of TV Studio:-A typical TV studio has the following installations after the training they will be able to understand the functioning and application of various TV studio equipment like Professional video camera (sometimes one, usually several), typically mounted on pedestals, Microphones, Stage lighting rigs and the associated Lighting control console, although it is often located in the production control room (PCR), Several video monitors for visual feedback from the PCR, A small public address system for communication, A glass window between the PCR and studio floor for direct visual contact is often desired, but not always possible, A teleprompter operator, especially if this is a live television news broadcast.
- Digital video effects (DVE) or Virtual TV studio, Video routers, Vision mixer (video switcher), Lighting, VTRs etc.
- Functioning of Radio Studio: There are various equipment like audio console, mikes, computer based recording system, radio studio automation software, phone in console etc. in Radio Studio setup.
- Functioning of TV Transmitter (DTT, DVB-T2): A television transmitter is a transmitter that is used for terrestrial (over-the-air) television broadcasting. It is an electronic device, radiates radio waves that carry a video signal representing moving images, along with a synchronized audio channel, which is received by television receivers.
- Functioning of Radio Transmitter: - A radio transmitter is an electronic device which produces RF signal and radiates through an antenna in the form of radio waves. The transmitter itself generates a radio frequency alternating current, which is applied to the antenna. When excited by this alternating current, the antenna radiates radio waves, there are various types of Radio Transmitters i.e Medium & Short Wave (AM), FM in our network.
- Functioning of Earth Station: Earth Station is also known as the ground station is an arrangement of various equipment on the surface or atmosphere of the earth that is used to transmit or receive signals in the form of voice, video, or data through single or multiple satellites. It is sometimes called the earth terminal and is a part of the ground segment of the

satellite network, there are various equipment related to this setup like HPA, up converter, Modulator, PDA etc. In addition to this the concept of link budget will also be covered.

- Tuning of DD Free Dish DTH: Direct-to-Home (DTH) television is a method of receiving satellite television by means of signals transmitted from direct-broadcast satellites to the home of subscribers . The Government of India (GoI) permitted the reception and distribution of satellite television signals in November 2000. DD Free Dish, the first free DTH service in India, was launched by public broadcaster Prasar Bharati in December 2004. The concept DTH, dish tuning, installation of DTH setup (Receive) will be covered under this course.

\*\*\*\*\*