



NI E C Virtual Labs

National Mission on Education Through 101

Digital Initiatives in Higher Education









Study Webs of Active-Learning for Young Aspiring Minds

https://swayam.gov.in/

As per 'Digital India' Initiative & Electronic Delivery of Services; the thrust areas assigned to MHRD is to develop & make available 'Massive Online Open Courses (MOOCs)' to the learners throughout the country. The Ministry of HRD, has accordingly embarked on a major and new initiative called 'Study Webs of Active Learning for Young Aspiring Minds' (SWAYAM), which will provide one integrated platform and portal for online courses, using information and communication technology (ICT) and covering all higher education subjects and skill sector courses to ensure that every student in the country has access to the best quality higher education at affordable cost.

Launched on 9th July 2017

Anyone, Anywhere, Anytime learning at no cost



Registered Students » 49+ lakhs

Enrollments » 100+ Lakhs

Courses on SWAYAM » 2,204

Courses in Jan-19 Semester » 506

Credit Transfer

So far, 122 Universities/Institutions have recognized the SWAYAM Courses for credit transfer

And many others are in the process of doing the same.

Teachers Training

15 Lakhs untrained schoolteachers are also getting trained under DEi.Ed programme of

And many others are in the process of doing the same.

800+ Courses Contributed by- More than 50 Universities

Download SWAYAM applications from popular app stores











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Annual Refresher Programme in Teaching (ARPIT) a major and unique initiative of online professional

Development of 15 lakh higher education faculty using the MOOCs platform **SWAYAM**

Local Chapters

3800 Local chapters (1650 UGC + 2150 NPTEL) created to publicize and help faculty & student

Certification

3,00,000+ Learners certified through **Swayam** since 2016

National Coordinators



UGC: PG Non Engineering



CEC: UG Non Engineering



NPTEL: UG & PG Engineering



IIMB: Management



IGNOU: Certificate & **Diploma** Courses



NITTTR: Teacher Training



NIOS: Open School 9th to 12th



NCERT: School 9th to 12th



AICTE: Annual Refresher Programme in Teaching (ARPIT) & Foreign Universities



"#SWAYAM enrollments have crossed 1 Crore yesterday. A milestone to be cherished. Congratulations to The entire team of SWAYAM www.swayam@gov.in"

- Shri R. Subrahmanyam (@subrahyd), Secretary (HE), MHRD, March 16, 2019



"@SWAYAMMHRD Online courses providing flexibility to learners and #lifelonglearning NPTEL's 12 week course 'Blockchain Architecture Design and Use Cases' is one of thousands of online

- Dr. N SARAVANA KUMAR (@saravanakr n), Joint Secretary (ICC & TEL), MHRD, February 10, 2019

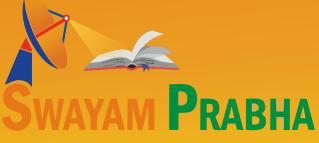
Download SWAYAM applications from popular app stores











Free DTH Channel for Education

https://www.swayamprabha.gov.in

Launched on 9th July 2017

SWAYAM PRABHA is an initiative to provide 32 high quality educational channels through DTH (Direct to Home) across the length and breadth of the country on 24X7 basis. This would enable to deliver e-education in a most cost effective & inclusive manner.



Higher Education: Curriculum-based course contents at post-graduate and under-graduate level.

IIT PAL: To assist the student in the classes 11 and 12 aspiring to join IITs.

School Education (9-12 levels): Modules for teacher's training as well as teaching and learning aids for children of India.

Curriculum-based courses that can meet the needs of life-long learners of Indian citizens in India and abroad.

The content for Swayam Prabha
Channels are provided by NPTEL,
IITs, UGC CEC, IGNOU,
NCERT and NIOS

Freely Available on DD Free Dish, Dish Tv (Zee) and Jio mobile app

Every day, there will be new content for at least (4) hours which would be repeated 5 more times in a day.

Channels uplinked from BISAG, Gandhinagar using 2 transponders of GSAT-15 Satellite.

CONTACT US

National Digital Library of India (NDL India) project was initiated to develop a framework of virtual repository of learning resources with a single-window search facility.

- **24x7 learning resource**
- Accessible by any one , from anywhere and anytime
- Single window search facility with filters through which users can personalise
- More than 2 Crore e-books/journals/audio books/question banks.
- **Contents are available in 200 + Languages**
- Registrations: 45 lakh +
- Number of institutions: 13,352
- Mobile App downloads: 13.1 Lakhs



https://www.ndl.gov.in

Launched on 19th June 2018

NATIONAL DIGITAL LIBRARY OF INDIA

Central Library • Indian Institute of Technology Kharagpur • Kharagpur, West Bengal, India - 721302 +91-3222-282435 • ndl-support@iitkgp.ac.in





Virtual VIRTUAL LABS

http://www.vlab.co.in/

Participating Institutes

























The vision of the Virtual Labs Project is to develop a fully interactive simulation environment to perform experiments, collect data, and answer questions to assess the understanding of the knowledge acquired. In order to achieve the objectives of such an ambitious project, it is essential to develop virtual laboratories with state-of-the-art computer simulation technology to create real world environments and problem handling capabilities. IIT, Delhi as the Nodal institute with other 10 institutes is undertaking this initiative.

To provide remote-access to Labs in various disciplines of Science and Engineering

Implemented by IIT Delhi under NMEICT

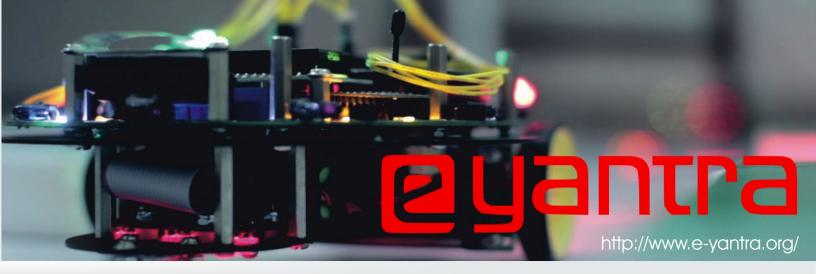
To share costly equipment and resources, which are otherwise available to limited number of users due to constraints on time and geographical distances

Cover 100 Virtual Labs, approximately 700+ web-enabled experiments.

Wireless Research Lab Room No - 206/IIA, Bharti School of Telecom Indian Institute of Technology Delhi, Hauz Khas, New Delhi-110016

Phone: 011-26582050 | Email: support@vlab.co.in





e-Yantra is a project implemented by IIT Bombay for enabling effective education across engineering colleges in India on embedded systems and Robotics. The training for teachers and students is imparted through workshops where participants are taught basics of embedded systems and programming. Engagement of teachers and students in hands-on experiments with robots by way of competition-event is another innovative method of problem-solving with out-of-box solutions. e-Yantra also helps colleges to set-up Robotics labs/clubs to make it a part of their routine training curriculum. More than 275 colleges across India have benefited with this initiative. All the projects and code are available on the e-Yantra web-site www.e-yantra.org as open source content.

- Promoting robotics as multi-disciplinary engineering project
 - Supporting innovation by students
 - · Learning by doing through group work
- Train teachers to teach engineering better
- **A project by IIT Mumbai under NMEICT**
- e-yantra Lab Setup initiative (eLSI) supports infrastructure creation
- e-yantra competitions are held across colleges to create awareness
- 296 Labs established in 32+ regions, propose to establish 500 + labs
- Over 2115 Teachers trained
- 5,932 Total Teams participated in e-Yantra Robotics Competition (eYRC)

ERTS Lab, First Floor, KReSIT Building, IIT Bombay, Powai, Mumbai - 400076, Maharashtra

Phone: 022 2576 4986, 022 25720184

Email: support@e-yantra.org





FREE AND OPEN SOURCE SOFTWARE IN EDUCATION https://fossee.in/

FOSSEE project implemented by IIT Bombay has been promoting use of open source software in educational institutions (http://fossee.in). It does through instructional material, such as spoken tutorials, documentation, such as textbook companions, awareness programmes, such as conferences, training workshops, and Internships. Textbook Companion (TBC) is a collection of code for solved examples of standard textbooks.

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- A project by IIT Mumbai under NMEICT.
- Textbook Companion (TBC) is a collection of code for solved examples of standard textbooks. 1,000 TBCs have been created in Scilab and Python alone.
- FOSSEE is promoting the well established open source software: Open Foam, an alternative to the proprietary software Fluent for computational fluid dynamics.
- DWSIM, an alternative to the proprietary software Aspen Plus, for chemical process simulation. eSim, an electronic design automation software, an alternative to ORCAD.

CFD - Lab, Aero. Annex Building, Below HSS Dept., Opp. Metallurgical Dept. IIT Bombay, Powai, Mumbai - 400076 Maharashtra

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https://fossee.in/