

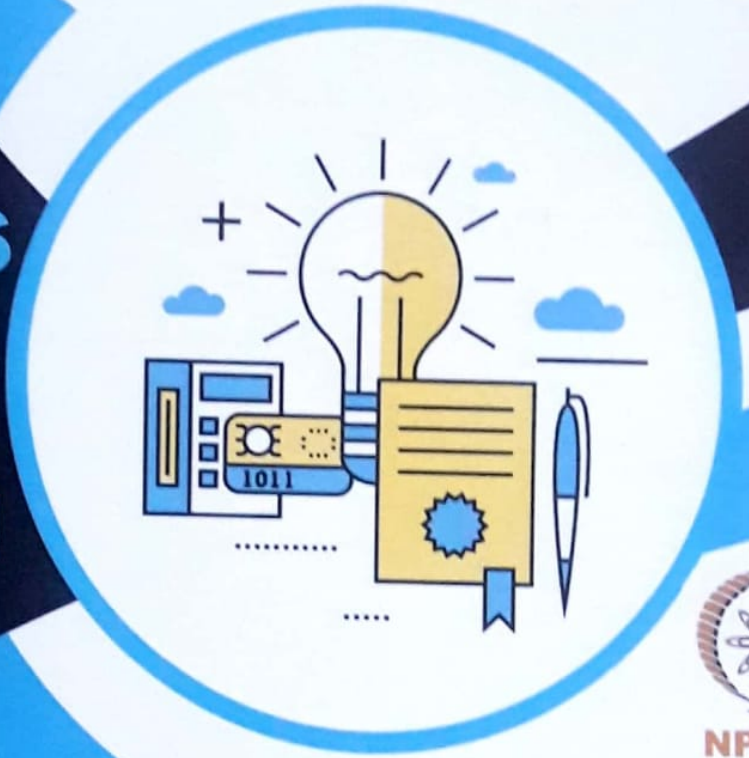


MHRD

Government of India
Ministry of Human Resource Development

PROF. K. SRINIVAS

DIGITAL INITIATIVES IN HIGHER EDUCATION



National Digital Library of India



e-kalpa



NATIONAL ACADEMIC DEPOSITORY
Transparency & Transformation Through Digitization



Spoken Tutorials



VIDWAN

Expert Database & National Researcher's Network



NMEICT

National Mission on Education Through ICT



www.swayam.gov.in

SWAYAM AN UNIQUE PLATFORM

**FOR
ONLINE
EDUCATION IN INDIA**



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi-110070
www.aicte-india.org www.swayam.gov.in
e-mail:- support@swayam.gov.in

DEVELOPMENT OF "SWAYAM" PLATFORM

BACKGROUND

SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds) Platform is indigenously developed by Ministry of Human Resource Development (MHRD) and All India Council for Technical Education (AICTE) with the help M/s. Microsoft Corporation India (Pvt.) Ltd. (MCIPL) for hosting Massive Open On-line courses (MOOCs) to achieve three cardinal principles of Education Policy viz., access, equity, and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy. SWAYAM would be ultimately capable of hosting 2000 courses and 80000 hours of learning: covering school, under-graduate, post-graduate, engineering, law and other professional courses.

SWAYAM is a One-stop web and mobile based interactive e-content for all courses from High School to University level; High quality learning experience using multimedia on anytime, anywhere basis; State of the art system that allows easy access, monitoring and certification; Peer Group interaction and discussion forum to clarify doubts and Hybrid model of delivery that adds to the quality of classroom teaching.

The Platform facilitates hosting of all the courses, taught in classrooms from 9th class till post-graduation to be accessed by anyone, anywhere at any time, prepared by the best teachers in the country, free of cost to the residents in India for learning any type of Course. The soft launch of "SWAYAM MOOCs" Platform was held on 15th August, 2016 and after completion of first phase of the Project, the Platform has been declared "go live" w.e.f. 16th November, 2016.

VISION

To host more than 10000 online Courses through SWAYAM platform for 30 million learners/students

starting from 9th class till post-graduation.

SWAYAM ANDROID MOBILE APP/GOOGLE PLAY/IOS

SWAYAM is available through Android Mobile app/Google Play/IOS which can be downloaded by anyone aspiring to pursue higher studies through MOOCs and get registered as learner or a Student for any course starting from 9th class till post-graduation.

SWAYAM TO BECOME GLOBAL.

It is contemplated to make SWAYAM Platform for hosting MOOCs courses global for which the Platform Developers M/s. MCIPL have been advised to initiate necessary action for tackling the cyber threats and other complications, if any, subject to approval from MHRD/Government of India.

PROCESS ADOPTED FOR DEVELOPMENT OF "SWAYAM" PLATFORM

CREATION OF "SWAYAM PROJECT CELL" AT AICTE, NEW DELHI

"SWAYAM Project Cell" has been created at AICTE, Headquarters under the over-all control of Chairman, AICTE with Dr. M.S. Manna, Director, AICTE being the Officer-in-charge of SWAYAM Project Cell.

CONSTITUTION OF JOINT COMMITTEE OF SWAYAM PROJECT CELL

In terms of Office Memorandum No. 8-26/2014-TEL (Pt.), dated 21st March, 2016 issued by MHRD, Two Committees i.e. Management Committee and Technical Committee were constituted comprising National MOOCs Coordinators (NMCs) including the Additional Secretary, MHRD and the Chairman, AICTE for day to day monitoring, evaluation of technical proposals, procurement of software and review of the progress of implementation of the SWAYAM project. This Committee was later given the name of "Joint Committee" of SPC. The Committee has so far held 27 meetings for deliberating the various issues pertaining to development of "SWAYAM" Platform.



"COURSES" ON SWAYAM PLATFORM

As per MOOCs Guidelines, "Course" has been defined in two types: Credit Courses and Non-Credit Courses.

Credit Course is a course which is taught for at least one semester as a part of subject/programme while **Non-Credit Course** includes Courses like awareness programme, continuing education programme or training of specific skill set as independent course which are not part of any set curriculum and are of shorter duration.

As on date, there are a total of 408 courses uploaded on www.swayam.gov.in out of which the major Courses are – 258 Courses (Engineering); 42 Courses (Science); 38 Courses (Humanity) and 20 Courses (Management) and remaining 50 (Education, Library, General, Commerce, etc.). The soft launch of "SWAYAM MOOCs" Platform was held on 15th August 2016 and after completion of first phase of the Project, the Platform has been declared "go live" w.e.f. 16th November, 2016.

ISSUE OF GAZETTE NOTIFICATION REGARDING CREDIT TRANSFERS BY UNIVERSITIES/ INSTITUTIONS

AICTE has issued the Gazette Notification dated 22nd August 2016 for AICTE (Credit Framework for online learning courses through SWAYAM) Regulation 2016 advising the Universities/Institutions to identify courses where credits can be transferred on to the academic record of the students for courses done on SWAYAM. An Institution can only allow credit up to 20% of the total courses being offered in a programme

FIRST SEMESTER OF ONLINE COURSES TO START FROM JULY 2017 THROUGH "SWAYAM" PLATFORM

In accordance with the AICTE Credit Framework Regulation on SWAYAM MOOCs, all the Vice Chancellors/Registrars/Directors/Principals/Controllers of Examination have been forwarded a List of 168 AICTE MOOCs courses and 95 UGC MOOCs courses that would be offered through SWAYAM portal for the first semester starting in July 2017 with a request to consider the same as per the provisions of the Regulations immediately so that students can register for the same.

SALIENT FEATURES OF THE 'SWAYAM' PROJECT

FOUR QUADRANT APPROACH

"SWAYAM" MOOCs Platform initiated by Government of India and developed by All India Council for Technical Education (AICTE) has "four quadrant approach" with the following components:

- i) e-Tutorials containing Video and Audio Contents in an organized form, Animation, Simulations, Virtual Labs;
- ii) e-Contents, like, PDF/e-books/illustration, video demonstrations, documents and interactive simulations, wherever required;
- iii) Web Resources containing related links, open content on internet, case studies, anecdotal information, historical development of the subject, Articles;
- iv) Self-assessment containing MCQ, Problems Quizzes, Assignments and Solutions, Discussion forum topics and setting up the FAQ, Clarifications on general misconceptions.

NATIONAL COORDINATORS (NCs)

For development of the e-content, delivery of online courses and overseeing the assessment procedures of courses offered on SWAYAM, eight (8) National Coordinators have been identified by MHRD under the Revised MOOCs Guidelines. They are NPTEL for Technical/ Engineering UG & PG Degree Programmes; UGC for Non-Technology Post Graduate Degree Programmes; CEC for Non-Technology UG Degree Programmes; NCERT for School Educational Programmes from Class 9th to 12th; IGNOU for Diplomas and Certificates Programmes; NIOS for out of School Children Educational Programmes from Class 9th to 12th; IIM, Bangalore for Management Programmes and NITTR, Chennai for Teacher Training Programmes. AICTE has been allowed to create non-credit courses through British Council or any other Institute for which MHRD would issue necessary directions shortly.

STATUS OF COURSES, REGISTRATION OF PRINCIPAL INVESTIGATOR (PI) AND UPLOADING OF COURSES ON SWAYAM PLATFORM

About the present status of the courses uploaded on SWAYAM Portal, out of the total 408 courses uploaded on the SWAYAM Platform, there are 168 courses which are running/operational and 233 courses have ended/non-operational.

In order to become PI, a request is to be made by the concerned PI to raise a request to his/her respective NC (National Coordinator) and submit his course idea on SWAYAM by using "Submit Course Idea" link on home page to send a course creation request on SWAYAM platform. After the invitation, PI can create own profile on SWAYAM platform and upload the course.

After the submission, of course contents by the PI, NC will review and approve the course. After the approval by NC, the said course will be available/uploaded on the SWAYAM Platform.

PROCESS FOR REGISTRATION OF INSTITUTIONS AND CERTIFICATION OF COURSES ON SWAYAM PLATFORM

The institutes need to provide a scanned copy of approval by AICTE/UGC or any authorized body of Govt. of India. Documents need to be sent on email-Id "Support@swayam.gov.in". After receiving the required documents, support team will review and add the Institute on SWAYAM Platform.

Course completion certification/Credit transfer will be available after the completion of Phase-2 of SWAYAM Project.

CONSTITUTION OF SWAYAM BOARD (SB)

MHRD vide letter No.8-1/2015-TEL, dated 13th April, 2017 has constituted SWAYAM Board (SB) consisting of administrators, reputed academicians and technical experts to administer/oversee the SWAYAM and the SWAYAM Prabha platforms. It would be responsible for laying down the policy regarding the technical aspects of both SWAYAM and

the SWAYAM Prabha including quality of content and its translation into regional languages etc.

ISSUE OF REVISED "MOOCs" GUIDELINES BY MHRD

With a view to providing access to the best quality learning resources across the Country, synergizing the quality of contents on SWAYAM Platform, standardizing the content delivery and for systematic development of the online Courses for SWAYAM, the Ministry of Human Resource Development (MHRD) has issued Revised "MOOCs" Guidelines on 1st June, 2017 replacing the old "MOOCs" Guidelines.

MoU with British Council

Even International Education Providers are keen to participate in the SWAYAM portal through Bi-directional operations. A MoU has been signed between AICTE (Through MHRD) and the British Council during the month of November 2016 to upload the online material developed under the E-QUAL project on the SWAYAM portal developed by MHRD and AICTE. British Council will work as a Coordinator with AICTE and promote SWAYAM portal to the U.K. Universities and encourage U.K. Universities to share their online education resources on the SWAYAM portal and devising a mechanism for credit transfer through jointly conducting a series of capacity development workshops for creation and delivery of MOOCs through SWAYAM. E-QUAL in partnership with AICTE had conducted "Teacher Training Workshop" on 15th & 16th March 2017 at AICTE HQ, New Delhi wherein the participants at UG faculty level attended. In addition to this, British Council has conducted seven regional workshops on "E-Learning: Challenges and Opportunities" across the Country followed by a National Seminar "Policy Dialogue on "Quality and Governance of ICT enabled education" on 11th May, 2017 at New Delhi.

Similar other requests are being received by AICTE/MHRD from various other agencies both in India and abroad for creating of e-contents/non-credit online courses to be uploaded on SWAYAM Platform which are under consideration.

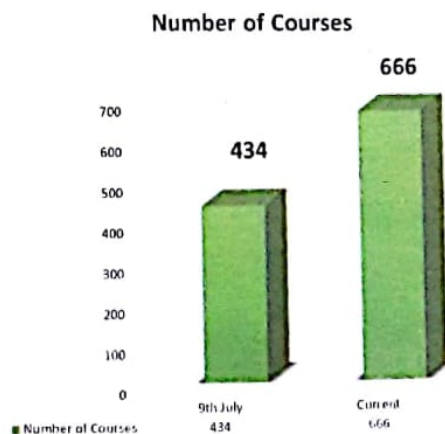
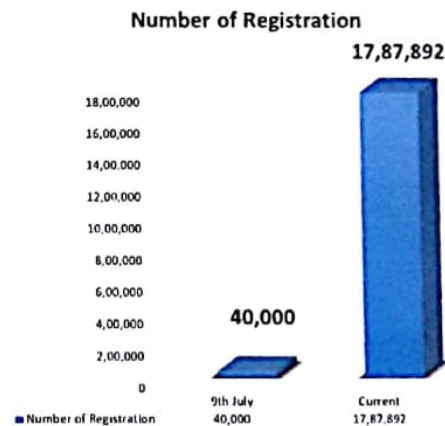
FEATURES OF "SWAYAM" PLATFORM

- User Onboarding
- Student Sign up
- Faculty Invite & Sign up
- Co Faculty Invite & Sign up
- Teaching Assistant Invite & Sign Up
- Profile management
- Basic Profile
- Advanced Profile
- Multi Role
- Idea Management
- Course Idea Submission
- Course Idea Approval / Rejection
- Course Creation
- Public / Private Courses
- Scheduled / Self Paced Courses
- Grade settings
- Define Exam Locations & Dates
- Enable Pre and Post course survey
- Credits Framework
- Define Course Credit
- Define Course completion criteria
- Participation Certificate
- Exams
- Hall ticket management
- Upload Hall ticket templates
- Generate Hall tickets
- Student
- Enroll to a course
- Consume course content (Videos, Articles, Uploaded Files)
- Submit Assignments
- Take course tests
- Initiate & follow Discussions
- Dashboard & Calendar view of upcoming events
- Apply for Exam (Online Payment via Pay Gov or CCAvenue)
- Download completion certificate
- Course Coordinator
- Track course progress
- Invite & Manage Learners
- Grade assignments
- Mark course completion for learners
- Dashboard view of upcoming events
- National Coordinator
- View Reports
- Invite & Manage Faculty, Co-Faculty, Teaching Assistants
- Manage course announcements
- Manage certificates and marksheets
- Adjust exam fee payments

- Manage Grades
- Hall ticket Management
- Course idea Management
- Advisory Board persona
- Course idea Management
- Invite & Replace Support
- Support Persona
- Invite & Replace National Coordinator
- Invite & Replace Registrar
- Invite & Remove Advisory board member
- Reports
- Student Reports
- Educator Reports
- National Coordinator Reports
- MHRD Reports
- Mobile Apps (Andriod / iOS / UWP)
- Access static content
- Consume course content
- Take course tests

UPCOMING FEATURES

- Credit Transfers
- Registrar Persona
- News
- Grievances
- Recommended Courses





Digital India

'SWAYAM' the Indian Online Platform

<https://swayam.gov.in>



Why ICT Learning

Gross Enrollment Ratio (GER) India 24%, 36.5% for Developing countries and 45% for Developed countries USA (84), Russia (71).

ICT Development Index (IDI) 2016 Report, UN ITU. Measure of digital divide and ICT performance, (indicators for **measuring the information society**).

Relating to ICT categories: **Access, Use and Skills**.

India (131) out of 167 Countries.

S Korea (1) UK (5), Japan (11), US (14),

Distance Edu: Course Material **Paper 4000 Tones/Annum**



MOOCs India Chapter

SWAYAM World class '**Made in India**' platform'
Study Webs of Active-learning for Young Aspiring Minds

MOOCs anytime, anywhere, anyone education

Three cardinal principles of Education Policy **Access, Equity & Quality**
Courses on SWAYAM are available **free of cost** to the learners.

Curriculum based MOOCs from School (9-12 levels), **Under Grad** to **Post Grad** all disciplines.

Developed & delivered by best of the teaching fraternity.

Functional since 16 Nov 2016, **434 MOOCs** Uploaded,
74,000 + Registered students.

MOOCs Content

MOOCs is developed & delivered in **Four quadrants**:

- a) High quality **video lectures** & multi-media instructions
– lectures by the best teachers
- b) e-Content – **self instructional** material, e-Book, **downloadable**
- c) **Discussion forum**: for raising of doubts and clarifying them on a near real time basis
- d) **Assignments**, Assessment, Problems and Solutions – for self evaluation

Text files, **Transcription**,

End Examination: to be conducted by Host Institute, award of credits/grades



MOOCs Platform

SWAYAM Platform development **assigned to AICTE** March 2016 for in-house development. High quality IT Platform **built by Microsoft**.

Operating System – Windows Server 2016 Enterprise Edition

- Middleware – REST Web API written in C#
- Databases – Microsoft SQL Server 2016
- Development Languages – C#




Mobile (**Android/iOS/window**)

To deliver about **2000 MOOCs** (2-3 Years).

Network to support 3 Crore users, with **10 Lakh concurrent** connections.

SWAYAM uses cloud of NBA (Azure) & is migrating to **CtrlS**, Tier 4 Data-centre & Cloud Service provider

MOOC Structure

8 National MOOCs Co-ordinator		Sectors
 University Grants Commission (UGC) NPTEL, IIT Madras		(323 Courses being Run w.e.f July 17) Non Technology Post Graduation Degree Programme (63)
 Consortium for Educ. Communication (CEC) IGNOU NCERT NIOS		Technical / Engineering UG & PG degree programme. (155) Non Technology Under Graduation degree programme. (62)
 IIM Bangalore NITTTR Chennai		Diploma and Certificates Programme (11) School Edu., Progrs from 9 th to 12 th (5) Out of school children Educational Programmes from Class 9 th to 12 th (14) Management Programme (10) Teacher Training Programme



Technical Standards

MOOCs Guidelines, 2017: Issues to maintain best standards. Video and multimedia content shall meet **highest industry standards**, both in technical and academic terms; HDTV 1920X1080, H.264, 3.5 Mbps AR 16:9.

MOOCs shall follow the **Model Curriculum**

Engages **best subject experts** in the country.

Funding by MHRD for Content Development & Delivery.

Content to be used in SWAYAM Prabha also.

SWAYAM Board: Empowered to take decisions for smooth running of SWAYAM and SWAYAM Prabha.

Student Engagement

Course shall be credit and non-credit courses

2-3 hours of lectures /**supplementary reading/ week**

A lectures broken into short modules; Every **module** has a **clear description of its contents** and expected learning outcomes.

Objective-type **assessments every week** (to be auto- graded or assisted by **Teaching Assistants (TAs)**/Mentors as the case be)

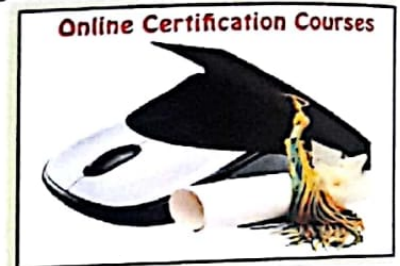
Longer and more extensive assignments 2/3 in number and discussed extensively in the **course discussion forums**.

Online payment for Examination & Credit Transfer.



Student Components

Login with SWAYAM Local ID, Facebook, Google & Azure Ad Dash board & view **Calendar** of upcoming events
Enroll course, Registration using SWAYAM Local ID, Facebook, Google & Live ID.
Consume course content (Videos, Articles, Uploaded Files)
Submit **Assignments** & Take Course Tests
Initiate & follow **Discussions**
Apply for **Exam** (Online Payment via PayGov or CCAven ue)
Download completion **certificate**



Global Reach & Partnership

SWAYAM courses open to foreign students also.
Foreign Universities on selective basis welcome to contribute Online Courses on SWAYAM. Credits thro' Local partner.
MOU with **British Council**.
MOOCs by UK Universities on SWAYAM Platform.
UNSW Australia & CEMCA

Budget 2017-18 Announces SWAYAM, 350 MOOCs, up 434





Join the MOOC Development

Get connected to concerned NMC.

Follows **Model Curriculum** (38) & Choice based credit system (**CBCS**) (108 UG Courses) prescribed by Regulator & SME to Update it.

Engages **best subject experts** as Course Coordinator.

Define pre-requisites, expected outcomes. Introductory 2-3 Mts video. **Multi-media rich** video, audio, Graphics, Animation, PPTs to engage students with their learning. Splitting the **course into weeks** and short modules

Weekly assessments and assignments.

Have **Discussion forums** to answer questions near online.

Evaluate, weightage on final exam. Financial Support.

Ways to benefit from SWAYAM

Academicians through SWAYAM can facilitate effective teaching both **On Campus & online**.

A Class Teacher can act as **Mentor** to assist Online in class; SWAYAM material may be used as **Blended Learning** or **Flip Classes**, a mix of classroom & online activities.

An Institute may allow **whole class** to opt a MOOC

MHRD is **open to add** National Coordinators depending on need to expand Courses to be offered.



Action Plan for Unis./Insts

Approve Online Courses: Select concern Online courses & get the courses cleared (well before each semester) through respective

Accademic Council, for recognition of Credit transfer. **Inform:** All faculties & Constituent colleges about SWAYAM, list of Courses approved & choice available to students

Publicise: The SWAYAM, Credit Notification & Courses available on SWAYAM & hold regulat **Workshops.**

Local Chapter: Constitute 2-3 senior members from each institute to coordinate & popularisre SWAYAM.

Promote Teachers: To develop & Deliver MOOCs on SWAYAM

Integration with Conventional Edu.

UGC Gazette Notification 19th July 2016 '**Credit Framework for Online Learning Courses through SWAYAM**'. AICTE 22.8.16.

A student studying at a recognized institute, having cleared the Online Course through SWAYAM, shall be awarded Credits & the **credits earned by such student shall be transferred from the Host Institute to the Parent Institute** where the student is studying. However at present, **Credits up to 20%** of the total courses can be earned in a Semester by such

Teachers API Score, Gazette Notification No.F.1-2/2016, 11 July 2016; Development of e-delivery/process/material **shall earn 10 per Module** (pp37)