

**SWAMI KESHAVANAND INSTITUTE OF TECHNOLOGY,
MANAGEMENT & GRAMOTHAN, JAIPUR**



**Department of Computer Science & Engineering and Department
Information Technology**

REPORT

One Week FDP (Online)

On

Arduino-an open source electronics microcontroller

22nd -26th March, 2022

Jointly Organized By:

Spoken Tutorial, IIT Bombay



Spoken Tutorials



&

Department of Computer science & Engineering (NBA Accredited) &

Department of Information Technology (NBA Accredited)

under

Center of Excellence for Internet of Things(IoT-COE)

Swami Keshvanand Institute of Technology, Management & Gramothan,
Jaipur-302017

Submitted By:

Dr. Sunita Gupta (IT)

Ms. Nidhi Srivastav (CSE)

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About SKIT

Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT) has been ranked no.1 engineering institute in Rajasthan by RTU, Kota consecutively for the last three years. SKIT is a selective comprehensive institution offering undergraduate and postgraduate programmes in Engineering and Management. The institute was established in the year 2000 by a team of committed professionals and academicians. During all the past years SKIT has emerged as a premier centre of technical education not only in Rajasthan but also in northern India which has been realized through efficient and dedicated faculty members, innovative teaching learning methods, state of the art infrastructures and core value of discipline. The various undergraduate programmes of the institute are accredited by the National Board of Accreditation (NBA).

Vision

To promote higher learning in advanced technology and industrial research to make our country a global player

Mission

To promote quality education, training and research in field of Engineering by establishing effective interface with industry and to encourage faculty to undertake industry sponsored projects for students.

Quality Policy

We are committed to 'achievement of quality' as an integral part of our institutional policy by continuous self-evaluation and striving to improve ourselves.

Institute would pursue quality in

- All its Endeavour's like admissions, teaching- learning processes, examinations, extra and co-curricular activities, industry institution interaction, research & development, continuing education, and consultancy.
- Functional areas like teaching departments, Training & Placement Cell, library, administrative office, accounts office, hostels, canteen, security services, transport, maintenance section and all other services.

Department of Computer Science & Engineering and Department of Information Technology

The Department is dedicated towards providing its students with a motivating environment and facilitating their academic requirements with committed and expert supervision of faculty and experts from various fields from time to time. The department offers B.Tech (CS) & B.Tech (IT), M.Tech. (CS) and PhD. (CS). The B.Tech degree programme has been accredited by NBA in both CSE and IT. The department Computer Science & Engineering is a recognized Research Centre of Rajasthan Technical University. Organises Spoken Tutorial and NPTEL Certification by IIT Bombay and has Virtual Lab setup by IIT Madras.



Organizing Committee of FDP

FDP is organized by Department of Computer Science & Engineering and Department of Information Technology, Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur, Under the guidance of Dr. Prof. Mukesh Gupta, HOD (CSE) SKIT and Dr. Prof. Anil Chaudhary, HOD (IT).

Coordinators of the FDP are:

1. Dr. Sunita Gupta, Associate Professor (IT), SKIT
2. Ms. Nidhi Srivastav, Associate Professor (CSE), SKIT
3. Mr. Mehul Mahrishi, Associate Professor (IT), SKIT

Objectives of the FDP

- Participant can build awesome projects by using Arduino.
- Arduino is great for programming so participants can learn electronics easily with Arduino.
- Participants can explore the opportunities and challenges in the use of Arduino.
- To provide an opportunity for the participants to learn from expert in Specialized areas

Contents of the FDP

- Overview and Introduction of Arduino
- Arduino components and IDE
- Arduino with Tricolor LED and LCD
- Wireless Connectivity to Arduino
- Assembly of Robot and Robot Control
- Introduction to IoT
- Assembly programming through Arduino
- AVR-GCC programming through Arduino
- Arduino Programming with Scilab and Xcos

Outcomes of the FDP

By the end of the program, the participants should:

- Understand the Structure of Arduino microcontroller, its components IDE and its applications.
- Explore the research opportunities and challenges of the using Arduino.
- Understand the current state of research and practice using Arduino in IoT.
- Know how to work with Arduino and its assembly for Robot Control, along with the Assembly programming through Arduino.
- Applications and Use of Arduino Programming with Scilab and Xcos .

FDP Brochure

PATRON

Shri Raja Ram Meel, Patron, SKIT
Shri Surja Ram Meel, Chairman, SKIT

ADVISORS

Shri Jaipal Meel, Director, SKIT
Prof. S.L. Surana, Director (Academics), SKIT
Mrs. Rachna Meel, Registrar, SKIT
Prof. Ramesh Kumar Pachar, Principal, SKIT
Mrs. Abha Meel, Adviser, SKIT
Prof. (Dr.) R.K. Jain, Dean, SKIT
Prof. (Dr.) Anil Choudhary, HOD (IT), SKIT
Prof. (Dr.) Mukesh Gupta, HOD (CSE), SKIT
Prof. (Dr.) Mukesh Arora, HOD (ECE), SKIT
Prof. (Dr.) Ona Ladiwal, HOD (DMS), SKIT
Prof. (Dr.) Dheeraj Joshi, HOD (ME), SKIT
Prof. (Dr.) D.K. Sharma, HOD (CE), SKIT
Dr. Dhanraj Chitara, Head (EE), SKIT
Prof. (Dr.) Rohit Mukherjee, Incharge, B.Tech. I Year, SKIT
Prof. (Dr.) Amber Shrivastava, Head (Maths), SKIT
Dr. Sharda Soni, Head (Chemistry), SKIT
Prof. (Dr.) Brajraj Sharma, Head (Physics), SKIT
Prof. (Dr.) Neha Purohit, Head (English), SKIT

COORDINATOR

Dr. Sumita Gupta, Spoken Tutorial Coordinator (IT)
Ms. Nidhi Srivastav, Spoken Tutorial Coordinator (CSE)
Mr. Mehul Mahrishi, Incharge, IoT Center of Excellence

ORGANIZING COMMITTEE

Department of Computer Science and Engineering
& Department of Information Technology,
Swami Keshvanand Institute of Technology,
Management & Gramothan, Jaipur, Rajasthan,
India-302017

REGISTRATION FORM

To join this FDP, you are requested to register your name
by clicking the following registration link / QRcode:

For SKIT Faculties:

<https://forms.gle/WB2vctXPDheo86SY6>

For Outside Faculties:

Registration & Payment Link (Participation Fees-590)

https://spoken-tutorial.org/training/list_events/ongoing/?state=29&foss=&host_college=&event_start_date_after=&event_start_date_before=&event_end_date_after=&event_end_date_before=&event_type=

Note:

- ✓ FDP will be conducted online through Spoken Tutorial portal.
- ✓ The registration for the FDP is on first come first serve basis.
- ✓ Participation Certificate will be provided by the Spoken Tutorial after completion of FDP. Course Completion Certificate will also be provided to the faculties who will score more than 40% in certification exam.
- ✓ For any queries regarding FDP, please contact: spoken_csit@skit.ac.in

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One Week Online FDP

On

**Arduino-an open source electronics
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&

**Department of CSE & IT
under
Center of Excellence for Internet of
Things (IoT-COE)**



**Swami Keshvanand Institute of Technology,
Management & Gramothan, Ramnagar,
Jagatpura, Jaipur – 302017**

Website: www.skit.ac.in

ABOUT PROGRAM

Program is intended to introduce with basics of Arduino with its applications. Program would help participant to understand the working of Arduino and its applications in various electronic projects. Arduino improves coding and electronics skills. Arduino programming is a great tool to learn coding and electronics because it easily connects with other open-source hardware and components.

OBJECTIVES OF THE FDP

- Participant can build awesome projects by using Arduino.
- Arduino is great for programming so participants can learn electronics easily with Arduino.
- Participants can explore the opportunities and challenges in the use of Arduino.
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CONTENTS

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- AVR-GCC programming through Arduino
- Arduino Programming with Scilab and Xcos



ABOUT SPOKEN TUTORIAL, IIT BOMBAY

A project of the National Mission on Education through ICT funded by the Ministry of Education (MHRD), Govt. of India. Spoken Tutorial is a multi-award winning educational content portal. Here one can learn various Free and Open Source Software all by oneself. It has self-paced, multi-lingual courses that anybody with a computer and a desire for learning, can learn from any place, at any time and in a language of their choice. All the content published on their website are shared under the CC BY SA license.

ABOUT SKIT JAIPUR

Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT) has been Ranked No. 1 Engineering Institute in Rajasthan by RTU, Kota consecutively for the last five years. SKIT is a selective comprehensive institution offering Undergraduate, Postgraduate & Doctorate Programmes in Engineering and Management. The institute was established in the year 2000 by a team of committed Professionals and Academicians. During all the past years SKIT has emerged as a Premier Center of Technical Education not only in Rajasthan but also in Northern India which has been realized through efficient and dedicated Faculty Members, Innovative Teaching Learning Methods, State of the art infrastructures and Core Value of Discipline. The various undergraduate programmes of the institute are accredited by the National Board of Accreditation (NBA). Located in the Pink City Jaipur, which is a blend of traditional history and modern outlook, SKIT is putting in efforts for making industry ready engineers and managers through effective Industry – Institute Interface. Apart from University curriculum SKIT also pursues activities for Research and Development in various fields. The green landscaping, aesthetic elegance of arches and the vibrant pursuit of knowledge by the young aspirants make the environment serene, pleasant and dynamic.

DEPARTMENT OF CSE & IT

The departments are NBA accredited and offers undergraduate programs in CSE & IT, postgraduate program in CSE and Ph.D. in CSE. The major areas of research are Big Data Analytics, Cloud Computing & Virtualization, Artificial Intelligence, Security, Compilers & Programming Languages, Computer Architecture, Bioinformatics and Theoretical Computer Science. Both departments have various research laboratories with the state-of-the-art computing facilities. The department is also recognized as a "Center of Excellence in IoT" by Rajasthan Technical University, Kota

TARGETED AUDIENCE

This FDP will be very helpful for faculties as it gives knowledge about Arduino and IOT that is base of recent trends and technology. The targeted audiences are faculty members of different organizations .

REGISTRATION FEE

Faculties of SKIT- No Registration fee
Outside Faculties- Rs.590 for Registration

IMPORTANT DATES

Last Date for Online Registration: 19.3.2022
FDP Dates: 22.3.2022-26.3.2022





Sample Feedback

4/12/22, 2:54 PM

One Week FDP (Online) on "Arduino-an open source electronics microcontroller" from 22nd March to 26th March 2022 - Feedback

One Week FDP (Online) on "Arduino-an open source electronics microcontroller" from 22nd March to 26th March 2022 - Feedback

E-mail ID (Mention your registered Email ID only) *

anjana@skit.ac.in

Full Name of the Participant *

ANJANA SANGWAN

Designation *

ASSOCIATE PROFESSOR

Organization *

Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

Employee ID (For SKIT Faculty Members only)

168

https://docs.google.com/forms/d/17wYnj8OOZ5dVekxY5_iTuECi1t2G14GO0YYA2XgSJUQ/edit#response=ACYDBNhrQRFp-OJs6zjiiOs-2fxXBP4q9A... 1/3



Contact Number *

941939111

Quality of the e-content available on Spoken Tutorial, IIT Bombay *

	1	2	3	
FAIR	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	EXCELLENT

How helpful was the content? *

	1	2	3	
Slightly Helpful	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Extremely Helpful

Relevance of the content *

	1	2	3	
FAIR	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	EXCELLENT

Knowledge gained by the FDP *

yes



4/12/22, 2:54 PM

One Week FDP (Online) on "Arduino-an open source electronics microcontroller" from 22nd March to 26th March 2022 - Feedback

Your overall experience *

	1	2	3	
FAIR	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	EXCELLENT

Any additional comments or suggestions?

.....

This form was created inside of Swami Keshvanand Institute of Technology.

Google Forms

https://docs.google.com/forms/d/17wYnj8OOZ5dVekxY5_iTuECi1t2G14GO0YYA2XgSJUQ/edit#response=ACYDBNhrQRFp-OJs6zjiiOs-2fxXBP4q9A... 3/3

Sample Copy of Participant's Certificate



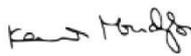

Spoken Tutorial
Project at
IIT Bombay

Certificate of Participation


ADAN
GHAN
ALAVIYA
NATIONAL MISSION ON
TEACHERS AND TEACHING

This is to certify that **DEEPA MODI** has participated in **Paid FDP** from **2022-03-22** to **2022-03-26** on **Arduino** organized by **SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT & GRAMOTHAN** with course material provided by Spoken Tutorial Project, IIT Bombay.

This training is offered by the Spoken Tutorial Project, IIT Bombay.


Prof. Kannan M Moudgalya
IIT Bombay

Spoken Tutorial is a project at IIT Bombay, started with funding from the National Mission on Education through ICT, Ministry of Education (previously MHRD), Govt. of India



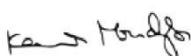

Spoken Tutorial
Project at
IIT Bombay

Certificate of Participation


ADAN
GHAN
ALAVIYA
NATIONAL MISSION ON
TEACHERS AND TEACHING

This is to certify that **MR. MAHENDER KUMAR BENIWAL** has participated in **Paid FDP** from **2022-03-22** to **2022-03-26** on **Arduino** organized by **SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT & GRAMOTHAN** with course material provided by Spoken Tutorial Project, IIT Bombay.

This training is offered by the Spoken Tutorial Project, IIT Bombay.


Prof. Kannan M Moudgalya
IIT Bombay

Spoken Tutorial is a project at IIT Bombay, started with funding from the National Mission on Education through ICT, Ministry of Education (previously MHRD), Govt. of India

List of Registered Participants

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