

A REPORT ON



International Workshop on 'Scilab' for Teachers

on

4th of May 2019 Under

'Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)',

MHRD, Govt. of Indía Conducted by

The Teaching Learning Centre (ICT), Supported by FOSSEE & Spoken Tutorials

Jointly Organized by IIT Bombay

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Swamí Keshvanand Institute of Technology, Management & Gramothan, Jaipur, Rajasthan

> Submitted by: Kailash Soni Workshop Coordinator Assistant Professor, Department of CSE

Index

- 1. About SKIT
- 2. Introduction to 'Scilab' Workshop
- 3. Methodology of the Workshop
- 4. Course Content
- 5. Speaker of Workshop
- 6. Eligibility for Workshop
- 7. Duration and Venue
- 8. Criteria for Certification
- 9. Course Fee
- 10. How to Apply
- 11. Basic Information
- 12. Address for Communication
- 13. Brochure by IIT
- 14. Brochure by SKIT
- 15. Invitation by IIT
- 16. Invitation by SKIT
- 17. List of Registered Participants
- 18. Instructions to install Scilab
- 19. Scilab CD content
- 20. Workshop Schedule
- 21. Sessions of Workshop:-
 - 21.1 Session 1 (Inaugural/Interaction through A-VIEW)
 - 21.2 Session 2 (Learning through CD-content)
 - 21.3 Session 3 (Learning through CD-content)
 - 21.4 Session 4 (Interaction/Valedictory through A-VIEW)
- 22. Attendance Sheet
- 23. Various Images for Publicity
- 24. Glimpses of Workshop
- 25. Feedback by Participants
- 26. Words of Acknowledgement

1. About SKIT:-

Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT) inspired from the learnings of Swami Keshvanand, was established in the year 2000 by Technocrats and Managers Society for Advanced Learning. Today the Institute is recognized as one of the centers of academic excellence in Northern India. The Institute is affiliated to Rajasthan Technical University, Kota for offering Postgraduate and Graduate Courses in Engineering and Management. Our sister institution Swami Keshvanand Institute of Pharmacy (SKIP) is affiliated to Rajasthan University of Health Sciences for offering Graduate Course in Pharmacy.

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.

Students joining the institute share the box full of opportunities for professional and personal development through an environment of practical orientation, industrial interaction and student led activities which help the students to develop good communication skills, integrated personality and greater competitive spirit.

Our Inspiration

"Mass illiteracy is the root cause behind backwardness of India. If we want speedy progress of nation we need to root it out as early as possible."

- Swami Keshvanand

Swami Keshvanand, an orphan, illiterate, nomadic man who never received formal education, was the founder of more than 300 schools, 50 hostels and innumerable libraries, social service centers and museums. Swami Keshvanand had a deep understanding of the rural society of the desert region. He had explained the peculiarities of the desert region, identified the problems and suggested appropriate and logical solutions. It was Swami Keshvanand's lifelong endeavour to eradicate social evils like untouchability, illiteracy, child marriage, indebtedness, poverty, backwardness, alcohol abuse, moral dissipation etc.

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 the 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 endeavours like admissions, teaching- learning processes, examinations, extra and cocurricular 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."

2. Introduction to workshop:-

IIT Bombay has conducted many large-scale teacher training workshops under the Train 10,000 Teachers (T10KT) programme, sponsored by the National Mission on Education through ICT (NMEICT), MHRD, Govt. of India, and trained over 2,00,000 teachers.

Another successful technology developed at IIT Bombay is Spoken Tutorial, using which about 50 lakh students have been trained on various ICT topics. The Spoken Tutorial project is also implemented successfully at IIT Bombay, with funding from NMEICT, MHRD.

It is now proposed to offer the highly effective Spoken Tutorial based ICT training to a large number of teachers, across the country, through the T10KT methodology, with **Scilab** training being taken up next.

Scilab is a Free/Libre and Open Source Software (FLOSS), created mainly for numerical computations. It uses the state of the art numerical libraries, such as LINPACK, EISPACK and LAPACK, and hence, its results are highly reliable. Scilab implements the user friendly language, similar to the one used in the popular software Matlab. But unlike Matlab, Scilab can be freely downloaded, freely copied, freely modified and also freely distributed. Naturally, Scilab can be used absolutely free of cost, unlike Matlab, which can be extremely expensive, especially to the industry. Scilab comes with a graphical programming interface Xcos, which is similar to Simulink. A good knowledge of Scilab will help improve the employment potential of your students.

The FOSSEE (Free/Libre and Open Source Software for Education) project at IIT Bombay (https://fossee.in) has been promoting Scilab, and other FLOSS software, such as Python, OpenFOAM, eSim, Osdag, OpenModelica, DWSIM & R, and Open Source hardware, such as Arduino and OpenPLC. FOSSEE is also funded by NMEICT, MHRD. Government of India has mandated the use of open source software.

The Scilab workshop is organised by the Teaching Learning Centre (TLC) at IIT Bombay, funded by the *Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching* (PMMNNTT), MHRD, Govt. of India. As Spoken Tutorial method offers hands-on practice, with 100% active learning, those who undergo this training will be able to start using Scilab immediately after the workshop. They will also be able to conduct Scilab workshops for their students, using Spoken Tutorials, on their own, without requiring any help from anyone else.

The one day Scilab workshop will be conducted on Saturday, 4 May 2019, through Remote Centres of IIT Bombay. The medium of instruction for this workshop is English. Language dubbed Spoken Tutorials in Hindi and a few other languages will also be available.

3. Methodology of the Workshop:-

It will be a one day workshop, on 4 May 2019. All participants will have to go to their chosen Remote Centre.

They will learn Scilab through Spoken Tutorials, with help from Coordinators, already trained for this purpose at IIT Bombay. As the learning will happen only through carefully designed Spoken Tutorials designed and developed at IIT Bombay, the quality of learning will be very high.

All the participants, from all the Remote Centres, will be able to interact with the Scilab team at IIT Bombay, ask them questions, etc., through the video conferencing software A-VIEW. There will be about 4 hours available for Scilab training and 2 hours for interactions.

4. Course content:-

The workshop will have two parts:

- (1) About 3.5 hours will be used in Learning Scilab from Spoken Tutorials.
- (2) About 30 minutes will be used to learn about the excellent Scilab content, developed by FOSSEE.
- (a) Learning Scilab from Spoken Tutorials Depending on the level of the user, one can learn any/all of the topics mentioned below. If one cannot complete all the topics, one can complete them later on, through self learning, as all required Spoken Tutorials are freely available.

Basic level: Getting started with Scilab, Vector Operations, Matrix Operations, Conditional branching, Iterations, Scripts and Functions, Plotting 2D graphs, Introduction to Xcos.

Intermediate level: File handling, User defined input and output, Integration, Solving non-linear equations, Linear equations - Gaussian methods, Linear equations - Iterative Methods, Interpolation, ODE Euler methods, and ODE Applications.

Advanced level: Optimization Using Karmarkar Function, Digital Signal Processing, Control systems, Discrete systems, Calling User Defined Functions in Xcos, and Simulating a PID controller using Xcos.

(b) Useful Scilab content developed by FOSSEE

A major problem with open source software is the lack of documentation. A solution to this problem is the Textbook Companion (TBC). A Scilab TBC is a collection of Scilab code for all solved examples of standard textbooks. The FOSSEE team has coordinated the creation of Scilab TBC for 600 books in science and engineering, all branches, with Scilab code for about 75,000 examples. Such a large collection is not available for any other software, including commercial ones. Students and faculty from various parts of the country have created this collection. FOSSEE provides a handsome honorarium to any one who creates TBC.

One may use the Scilab TBC (1) to understand the steps of examples (2) to do what if studies by changing parameters (3) to locate the syntax for a command and (4) to locate all examples that use a particular command, and so on. Scilab TBC are available at https://scilab.in/Completed_Books, absolutely free of cost. Scilab TBC is also hosted on the cloud.

The FOSSEE Team also helps colleges migrate their labs to Scilab. This allows colleges that cannot afford Matlab to run their labs with Scilab. Codes of migrated labs are available at https://scilab.in/lab_migration/completed_labs.

The FOSSEE Team has also developed a few useful toolboxes, available at https://scilab.in/fossee-scilab-toolbox. We invite talented people to join us in improving these toolboxes and to develop new toolboxes. We have also created a cloud version of Xcos and 130 Xcos examples that can run on this cloud. Depending on the time available, one can try out all of the above.

5. Speaker of Workshop:-

- **Prof. Kannan Moudgalya**, Principal Investigator, TLC (ICT), Spoken Tutorial and FOSSEE projects, IIT Bombay.
- **FOSSEE** Team Members, IIT Bombay.

6. Eligibility for Workshop:-

As this workshop is not subject-specific, teaching faculty from all domains (engineering, sciences), and polytechnic colleges, and PGT of schools, can attend. Teachers registered in a Masters or a PhD programme, during their employment as a teacher, can also participate.

7. Duration and Venue:-

The workshop will be conducted on **Saturday, 4 May 2019 from 9.30 AM to 6.00 PM** at IAI Lab, CS Bock, SKIT (Remote Centre of IIT Bombay). This workshop will be conducted through a blended mode, using both live video conferencing facility (A-VIEW) and hands-on sessions using Spoken Tutorials.

8. Criteria for Certification:-

E-certificate will be provided to the participants after successful completion of the workshop and filling up the feedback form

9. Course Fee:-

For SKIT staff **Rs. 100** (course fee to IIT Bombay) + **Rs. 50** (On 4 may to Remote Center)*, For other **Rs. 100** (course fee to IIT Bombay) + **Rs. 400** (On 4 may to Remote Center)*. Please note that the registration fee once paid is neither refundable nor adjustable under any circumstances. (* To defray the cost of organising the workshop, lunch, and coffee/tea)

10. How to Apply:-

Enrollment will be strictly online, and no other mode of application will be entertained. **The last date of registration is 3 May 2019, 12.30 pm.** The URL for registration is: http://www.it.iitb.ac.in/nmeict/workshopContent.html?workshopid=cvCcqusnXUHEd8JY5ih ORg

If you are a new user on this website then please complete the **Sign up**

Register on the Spoken Tutorial Website:

- 1. Before the workshop, participants should register on https://spoken-tutorial.org/
- 2. Fill up the registration form and submit.
- 3. An email will be received.
- 4. The account should be activated by clicking the link in the email.
- 5. The Username and Password should be noted. This is an extremely important step.
- 6. One needs the above information to post questions on the forum, which will be explained at the time of the workshop.

11. Basic Information:-

- Neither IIT Bombay nor the Remote Centre will bear the travel expense of the participating representatives. There shall also be no accommodation provided to the participants.
- All participants are required to bring **ear phones**, as they will have to listen to video tutorials. Without ear phones, the workshop will not at all be effective.
- Computers to practise Spoken Tutorials and to do Scilab programming will be available at the Remote Centres. But if they wish, participants can bring their own laptops with Scilab installed.

12. Address for Communication:-

At IIT Bombay:-

Dr. Kalpana Kannan

Project Coordinator, ESOS Project

Department of CSE, Kanwal Rekhi Building,

Indian Institute of Technology Bombay,

Mumbai - 400 076.

Tel.: +91-22-2576 4989 and Fax: +91-22-2572 0022

Email: eoutreach@it.iitb.ac.in and Website - www.it.iitb.ac.in/nmeict

At SKIT Jaipur:-

Mr. Kailash Soni

Workshop Coordinator,

Assistant Professor Dept. of CSE (SKIT)

Mob. 9460066186 and 0141-5160400

Email: kailash100ni.er@gmail.com and Website - www.skit.ac.in

13. Brochure by IIT Bombay:-

1. About The Institution :-

Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT) inspired from the learnings of Swami Keshvanand, was established in the year 2000 by Technocrats and Managers Society for Advanced Learning, Today the institute is recognized as one of the center of academic excellence in Northern India. The Institute is affiliated to Rajasthan Technical University, Kota affiliated to Rajasthan Technical University, Kota for offering Postgraduste and Graduate Courses in Engineering and Management. Our sister institution Swami Keshvanand Institute of Pharmacy (SKIP) is affiliated to Rajasthan University of Health Sciences for offering Graduate Course in Pharmacy. It is 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.

2. Introduction :-

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Open Source hardware, such as Arduino and OpenPLC. FOSSEE is also funded by NMEICT, MHRD. Government of India has mandated the use of open source software.

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The one day Scilab workshop will be conducted on Saturday, 4 May 2019, through Remote Centres of IIT Bombay. The medium of instruction for this workshop is English. Language dubbed Spoken Tutorials in Hindi and a few other languages will also be available.

3. Methodology of the Main Workshop :-It will be a one day workshop, on 4 May 2019. All participants will have to go to their chosen Remote Centre. They will learn Scilab through Spoken Tutorials, with help from Coordinators, already trained for this purpose at IIT Bombay. As the trained for this purpose at ITI Bombay. As the learning will happen only through carefully designed Spoken Tutorials designed and developed at IIT Bombay, the quality of learning will be very high. All the participants, from all the Remote Centres, will be able to interact with the Scilab team at IIT Bombay, ask them questions, etc., through the video conferencing software A-VIEW. There will be about 4 hours available for Scilab training and 2 hours for

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5. Teaching faculty:-Prof. Kannan Moudgalya, Principal Investigator, TLC (ICT) Spoken Tutorial and FOSSEE Projects, FOSSEE Team members, IIT Bombay

Every participant has to pay Rs. 100 as the course fee to IIT Bombay at the time of online registration, On the day of the workshop, i.e., on 4 May 2019, they have to pay Rs. 400 to the Remote Centre that they would be attending, to defray the cost of

organizing the workshop, lunch, and coffee/tea. Please note that the registration fee once paid is neither refundable nor adjustable under any

7. Who should attend?

As this workshop is not subject-specific, teaching faculty from all domains (engineering, sciences), and polytechnic colleges, and PGT of schools, can attend. Teachers registered in a Masters or a PhD programme, during their employment as a teacher, can also participate

8. Criteria for Certification

E-certificate will be provided to the participants after successful completion of the workshop and filling up the feedback form.

The workshop will be conducted at, Swami Keshnvanand Institute of Technology, Jaipur 302017 on Saturday, 4 May 2019 from 9.30 AM to 6.00 PM. This workshop will be conducted through a blended mode, using both live video conferencing facility (A-VIEW) and Hands- on sessions using Spoken Tutorials.

10. How to apply? Enrollment will be strictly online, and no other mode of application will be entertained. The last date of stration is 30 April 2019, 12.30 pm. The URL for registration is:

http://www.it.iitb.ac.in/nmeict/announcements.html

Registration process for this workshop:-

- Sign up using your valid email id. Remember your email id and password for future programs.
- After verification of your sign up, your account will be created on the NMEICT website.
- Login on the website with the verified account.
- 4. Go to Announcements, select the course, and
- 5. After successful registration, you will receive an automated email.

- Register on Spoken Tutorial Website:-1. Before the workshop, participants register on https://spoken-tutorial.org/
- 2. Fill up the registration form and submit.
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11. Prerequisite for the Scilab Workshop :-

You must see the four short videos given by Prof. Kannan Moudgalya about Scilab and its benefits. outube.com/playlist?list=PL_uaeekrhG zKrZ8NGHs6gUVNmV 1ZoXx0&disable polymer

It is mandatory to see all the given videos before the workshop.

Address for communication :-Dr. Mukesh Kumar Gupta Remote Center Coordinator & Professor, Department of CSE SKIT, Jaipur, Pin: 302017. Mobile: 9772545766 Email: mukeshgupta@skit.ac.in

Mr. Kailash Soni Mr. Kattash Soni Programme Coordinator & Asst. Professor, Department of CSE, SKIT, Jaipur, Pin: 302017. Mobile: 9460066186

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One Day Workshop Under

'Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)

Funded by the Ministry of Human Resource Development, Government of India

04 May 2019

Conducted by **IIT Bombay** Hosted by SKIT, Jaipur (RC -1476)

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- After verification of your sign up, your accountil be created on the NMEICT website.
- Login on the website with the verified account.
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Dr. Mukesh Kumar Gupta Remote Center Coordinator Professor, Department of CSE SKIT, Jaipur, Pin: 302017. Mobile: 9772545766 Email: mukeshgupta@skit.ac.in

Programme Coordinator & Asst. Professor, Department of CSE, SKIT, Jaipur, Pin: 302017. Mobile: 9460066186

Email: kailash100ni.er@gmail.com





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One Day Workshop Under

'Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)

Funded by the Ministry of Human Resource Development. Government of India On

Scilab 04 May 2019

Conducted by **IIT Bombay**

Hosted by SKIT, Jaipur (RC -1476)





15. Invitation by IIT:-



Kannan M. Moudgalya, Ph.D

Erach and Meheroo Mehta
Advanced Education Technology
Chair Professor
Department of Chemical Engineering
Indian Institute of Technology Bombay
Powai, Mumbai 400 076, India.



कण्णन मणि मौद्गल्या इरेच तथा पेहरू पेहता प्रणत विश्वा बौद्योगिकी पीळातीन प्राध्यापक राज्यापनिक अपियोजिकी विभाग भारतीय पौद्योगिकी संस्थान मुंबई पवर्ड, मुंबई 400 076, भारत.



08 April 2019

Dear Sir/Madam,

Greetings from IIT Bombay!

We are glad to announce a **One Day Scilab workshop** for **Teachers**. This is being organised by the Teaching Learning Centre (ICT) at IIT Bombay, funded by the *Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMNNMTT*), an initiative of the Ministry of Human Resource Development, Government of India. I am writing this mail to invite you to attend this workshop at a Remote Centre convenient to you.

Details of this programme are given below:

Workshop Name: One Day Scilab workshop for Teachers

Who should attend? Teachers

Date: Saturday, 4 May 2019

Venue: 160+ Remote Centres of ours, a list of which will be available through this link https://www.it.iitb.ac.in/nmeict/announcements.html

How the workshop will be conducted:

It will be a one day workshop, on 4 May 2019. We will interact live through A-VIEW at the beginning. After that, all of you will learn Scilab using spoken tutorials, guided by the Course Coordinator in the Remote Centre you attend. We will answer your questions, if any, using a Forum, especially designed for distributed learning. In the evening, we shall connect through A-VIEW again, carry out discussions and end the programme. There will be about 4 to 5 hours available for Scilab training and two hours for interactions, a detailed schedule of which will be made available later.

You will have to pay Rs. 100 as a course fee to IIT Bombay at the time of registration, and Rs. 400 to the Remote Centre directly at the time of the workshop, using which, they will make available lunch and coffee/tea/snacks. Balance amount, if any, will be used by the Remote Centre to pay for the maintenance of their infrastructure.

Procedure to participate in the workshop:

To participate in this workshop, please register at (https://www.it.iitb.ac.in/nmeict/) and follow the instructions. The registration portal will open on 9 April 2019 and will close on 30 April 2019, at 12.30 pm.

Please feel free to bring this information to the attention of your colleagues and friends, anywhere in India, and encourage them to join. Please note that this workshop may be useful to senior teachers of schools as well.

We look forward to your enthusiastic participation in this initiative.

Regards,

Kans Mondo

Prof. Kannan Moudgalya
PI, TLC (ICT), PMMMNMTT

16. Invitation by SKIT:-



SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT & GRAMOTHAN



Ramnagaria, Jaipur

Date: 20.04.2019

INVITATION FOR SCILAB WORKSHOP

We are glad to inform you that Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur and Indian Institute of Technology, Bombay are jointly organizing a One Day Workshop on Scilab for Teachers under the project 'Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching' (PMMMNMTT), funded by the Ministry of Human Resource Development, Government of India.

Scilab is a Free/Libre and Open Source Software (FLOSS), created mainly for numerical computations. It uses the state of the art numerical libraries so its results are highly reliable. It is similar to the one used in the popular software Matlab. Scilab can be freely downloaded, freely copied, freely modified and also freely distributed, unlike Matlab. A good knowledge of Scilab will help improve the employment potential of your students.

On behalf of the remote centre SKIT College, Jaipur, I request you to circulate and give publicity to the event and encourage your colleagues to participate. Interested candidates may register on or before 30th April, 2019 till 12:30PM through online link given below.

Title: 'One Day Workshop on Scilab'

Date: 04th of May, 2019 Venue: SKIT College, Jaipur

For registration/fee details: http://www.it.iitb.ac.in/nmeict/announcements.html

For queries please contact: Kailash Soni (9460066186) / kailash100ni.er@gmail.com





Dr. Mukesh Kumar Gupta Professor, Department of CSE

Ph: 0141-5160400





Workshop Coordinator:

Mr. Kailash Soni Asst. Professor, Department of CSE Mob: 9460066186

17. List of Registered Participants:-

Total number of registered participants: - **100**Total number of confirmed registration: - 99
Total number of in-house participants: - 90
Total number of outside participants: - 10

List of in-house participants:-

Sr. No.	Enrll No.	Name	Designation	Status
1	199074	Bhawna Chaudhary	Assistant Professor	Confirmed
2	199114	Rashmi Dadhich	Assistant Professor	Confirmed
3	199196	Swati Arora	Associate Professor	Confirmed
4	199197	Rukhsar Zafar	Associate Professor	Confirmed
5	199233	Sushila Vishnoi	Associate Professor	Confirmed
6	199603	Mehul Mahrishi	Reader	Request Registered
7	199629	Niketa Sharma	Associate Professor	Confirmed
8	199661	Pankaj Dadheech	Associate Professor	Confirmed
9	199755	Ankit Agarwal	Assistant Professor	Confirmed
10	199756	Sushant Kumar	Assistant Professor	Confirmed
11	199778	Nidhi Srivastav	Associate Professor	Confirmed
12	199780	Vinod Kataria	Associate Professor	Confirmed
13	199796	Shubhi Jain	Assistant Professor	Confirmed
14	199798	Yogendra Gupta	Assistant Professor	Confirmed
15	199799	Neeraj Garg	Assistant Professor	Confirmed
16	199912	Richa Sharma	Assistant Professor	Confirmed
17	200227	Praveen Kumar Jain	Associate Professor	Confirmed
18	200258	Gloria Joseph	Assistant Professor	Confirmed
19	200288	Manju Choudhary	Associate Professor	Confirmed
20	200337	Vijeta Khicha	Assistant Professor	Confirmed
21	200345	Shanu Tripathi	Assistant Professor	Confirmed
22	200348	Aakriti Sharma	Assistant Professor	Confirmed
23	200357	Deepa Modi	Assistant Professor	Confirmed
24	200363	Garima Gupta	Assistant Professor	Confirmed
25	200374	Shalini Singhal	Assistant Professor	Confirmed
26	200391	Avadhesh Sharma	Assistant Professor	Confirmed
27	200413	Anurag Sharma	Associate Professor	Confirmed
28	200419	Vivek Sharma	Assistant Professor	Confirmed
29	200458	Neha Janu	Associate Professor	Confirmed
30	200467	Manish Navlakha	Assistant Professor	Confirmed
31	200470	Chandan Singh	Technical Assistant	Confirmed
32	200474	Neha Mathur	Assistant Professor	Confirmed
33	200547	Brajraj Sharma	Associate Professor	Confirmed
34	200555	Sunita Gupta	Associate Professor	Confirmed
35	200563	Sunil Kumar	Assistant Professor	Confirmed

36	200574	Manoj Kumar	Assistant Professor	Confirmed
37	200611	Anjana Sangwan	Assistant Professor	Confirmed
38	200671	Monika Mathur	Associate Professor	Confirmed
39	200719	Rajat Goel	Associate Professor	Confirmed
40	200727	Kajal Mathur	Assistant Professor	Confirmed
41	200810	Rammurti Meena	Assistant Professor	Confirmed
42	200820	Deepti Arela	Assistant Professor	Confirmed
43	200835	Ajay Kumar Sharma	Assistant Professor	Confirmed
44	200839	Manasvi Dixit	Associate Professor	Confirmed
45	200843	Komal Sharma	Associate Professor	Confirmed
46	200845	Pawan Kumar Jain	Assistant Professor	Confirmed
47	200850	Rishi Vyas	Associate Professor	Confirmed
48	201090	Sumit Gupta	Assistant Professor	Confirmed
49	201248	Pramila Kumawat	Associate Professor	Confirmed
50	201263	Jyoti Arora	Associate Professor	Confirmed
51	201458	Kavita Jain	Assistant Professor	Confirmed
52	201455	Sanwta Ram Dogiwal	Associate Professor	Confirmed
53	201503	Ruchika Khandelwal	Assistant Professor	Confirmed
54	201518	Priyanka Sharma	Assistant Professor	Confirmed
55	201652	Nikhar Bhatnagar	Assistant Professor	Confirmed
56	201032	Sangeeta Choudhary	Associate Professor	Confirmed
57	201763	Pooja Jain	Assistant Professor	Confirmed
58	202027	Pankaj Kumar Jadwal	Assistant Professor	Confirmed
59	202027	•	Assistant Professor	Confirmed
60		Vinay Kanungo	Assistant Professor	Confirmed
61	202080 202313	Dolly Mittal Vijay Kumar Singhal		Confirmed
62	202313	Chandra Prakash Jain	Associate Professor Assistant Professor	Confirmed
				Confirmed
63	202344	Nawal Jangid	Associate Professor Professor	Confirmed
64	202348	Raj Kumar Jain		
65	202354	Namrata Joshi	Assistant Professor	Confirmed
66	202362 202408	Priyanka Sharma	Assistant Professor Assistant Professor	Confirmed
67		Vivek Vijay		Confirmed
68	202416	Udai Sharma	Associate Professor	Confirmed
69	202476	Akash Johari	Assistant Professor	Confirmed
70	202480	Pooja Choudhary	Assistant Professor	Confirmed
71	202496	Richa Rawal	Assistant Lecturer	Confirmed
72	202500	Sanju Choudhary	Assistant Lecturer	Confirmed
73	202504	Rubal Deep Gill	Assistant Drefessor	Confirmed
74	202511	Harpreet Singh Gill	Assistant Professor	Confirmed
75 76	202517	Anjali Pandey	Assistant Professor	Confirmed
76	202577	Shalini Shekhawat	Assistant Professor	Confirmed
77	202620	Bharat Modi	Associate Professor	Confirmed
78	202900	Prakash Bharadwaj	Assistant Professor	Confirmed
79	202905	Trivendra Kr. Sharma	Assistant Professor	Confirmed
80	202923	Jitendra Kumar	Assistant Professor	Confirmed
81	202932	Ankur Kumar	Assistant Professor	Confirmed

82	202974	Poonam Ojha	Assistant Professor	Confirmed
83	203102	Rajesh Kumar	Technical Assistant	Confirmed
84	203412	Sunil Dhankhar	Associate Professor	Confirmed
85	203424	Mohd Imran	Assistant Professor	Confirmed
86	203426	Shubhra Saxena	Assistant Professor	Confirmed
87	203428	Tarun Naruka	Associate Professor	Confirmed
88	201271	Ganpat Singh (SKIT)	Associate Professor	Confirmed
89	202007	Ankit Kumar (SKIT)	Assistant Professor	Confirmed
90	202917	Sumit Jhalani (SKIT)	Lecturer	Confirmed

List of outside participants:-

Sr. No.	Enrll No.	Name	Designation	Institute	Status
1	199898	Reema Jain	Associate Professor	Manipal University, Jaipur	Confirmed
2	200179	Krishna Meel	Associate Professor	B. K. Birla Institute of Engineering and Technology, Pilani	Confirmed
3	200935	Pawan Kumar Patidar	Assistant Professor	Poornima College of Engineering, Sitapura	Confirmed
4	201001	Yogesh Agarwal	Assistant Professor	Jaipur Engineering College and Research Centre, Jaipur	Confirmed
5	201399	Sunil Sharma	HOD	Govt. Polytechnic College, Alwar	Confirmed
6	202000	Yogesh Sharma	Assistant Professor	Centre for electronic governance	Confirmed
7	202010	Maninder Singh Bhui	Assistant Professor	Centre for electronic governance	Confirmed
8	202414	Mukesh Kataria	Assistant Professor	Poornima College of Engineering, Sitapura	Confirmed
9	202676	Sanjeev Kr. Sharma	Lecturer	MAHARAJA SAWAI MAN SINGH VIDYALAYA	Confirmed
10	202689	Jitendra Nigam	Lecturer	MAHARAJA SAWAI MAN SINGH VIDYALAYA	Confirmed

18. Instructions to install Scilab:-

System requirements for Scilab Installation:

- 1. Operating system: Linux- Ubuntu 14.04 to 17.10, or Windows 7 to 10, with 2GB RAM (4GB preferable)
- 2. You have to install Scilab 5.5.2, please follow the installation instructions given below as per your operating system.

The procedure to install Scilab on Ubuntu Linux OS:

- 1. To follow the installation procedure, you need to be connected to the Internet.
- 2. Open the terminal by pressing **Ctrl** + **Alt** + **T** keys together.
- 3. Now in the terminal type **sudo apt-get install scilab** and press Enter.
- 4. Enter the system password if required.
- 5. It will display how much has to be downloaded from the internet and how much disk space will be occupied.

- 6. Type y and press Enter to confirm this.
- 7. This will install Scilab.
- 8. Now open the terminal.
- 9. Now in the terminal type scilab and press Enter.
- 10. This will open the Scilab console and launch Scilab
- 11. Once Scilab launches, type [1 2 3] + [2 4 6], and press Enter.
- 12. If you see ans = 3. 6. 9. Scilab has been installed successfully.

The procedure to install Scilab on Windows OS:

- 1. To follow the installation procedure, you need to be connected to the Internet.
- 2. Open your browser and go to www.scilab.org.
- 3. On the homepage, locate the **Scilab versions** menu.
- 4. Click on Scilab 5.5.2
- 5. On the next page, under **Windows Vista**, **7**, **8**, **10** menu, select the 32 bit or 64 bit installation depending on your system. This will start the download.
- 6. Once the download finishes, go to the folder where you downloaded the file.
- 7. **Double-click on the .exe** file you just downloaded.
- 8. Select the language you would prefer to use while installing Scilab.
- 9. Click 'Next' on each of the subsequent screens. Accept the user agreement when it shows up.
- 10. Once Scilab finishes installing, click on the **Finish** button.
- 11. This will launch Scilab.
- 12. Once Scilab launches, type [1 2 3] + [2 4 6], and press Enter.
- 13. If you see ans = 3. 6. 9. Scilab has been installed successfully.

19. Scilab CD Content:-

Before the workshop IIT Bombay provides a series of Scilab videos it's called Scilab CD content. These videos provide the following knowledge of Scilab:-

Sr. No.	About the video
1	Introduction to Scilab and its benefits
2	Self learning of Scilab through Spoken Tutorials
3	The amazing resource of Scilab Textbook Companion
4	Scilab Lab migration, Toolboxes and Forums
5	Installing of Scilab
6	Getting Started
7	Vector Operations
8	Matrix Operations
9	Conditional Branching
10	Iteration
11	Scripts and Functions
12	Plotting 2D graphs

13	Xcos Introduction
14	File handling
15	User Defined Input and Output
16	Integration
17	Solving Non linear Equations
18	Linear equations Gaussian Methods
19	Linear equations Iterative Methods
20	Interpolation
21	ODE Euler methods
22	ODE Applications
23	Optimization Using Karmarkar Function
24	Digital Signal Processing
25	Control systems
26	Discrete systems
27	Calling User Defined Functions in XCOS
28	Simulating a PID controller using XCOS

20. Workshop Schedule:-

Schedule of Scilab workshop held on 4 may, 2019.

Timing	Description of the Session	Session type	
9.00 AM - 9.30 AM	Connect online on A-VIEW and testing session		
9.30 AM - 10.00 AM	Inaugural Session: Overview of the project and workshop, conduct of the workshop, answering through Forum, efficacy of the method, etc.	Online through A-VIEW	
10.00 AM - 10.30 AM	Interaction with Remote Centres		
10.30 AM – 10.45 AM	Tea Break		
10.45 PM - 1.00 PM	Self Learning of Scilab using Spoken Tutorials	At Remote Centres	
1.00 PM - 2.00 PM	Lunch Break		
2.00 PM- 3.45 PM	Scilab Learning (contd.)	At Remote Centres	
3.45 PM- 4.00 PM	Tea Break		
4.00 PM- 5.00 PM	Scilab Learning (contd.)	At Remote Centres	
5.00 PM - 6.00 PM	Interaction with Remote Centres and Valedictory Session	Online through A-VIEW	

21. Sessions of Workshop:-

That workshop scheduled in following four sessions:-

Sr. No.	Session No.	Description	Session type
1	Session 1	Inaugural/Interaction	through A-VIEW
2	Session 2	Self Learning of Scilab using Spoken Tutorials	At Remote Centres
3	Session 3	Self Learning of Scilab using Spoken Tutorials	At Remote Centres
4	Session 4	Interaction with Remote Centres and Valedictory Session	through A-VIEW

21.1. Session 1:-

The first session was the inaugural session it was addressing by **Prof. Kannan Moudgalya**, Principal Investigator, TLC (ICT), Spoken Tutorial and FOSSEE projects, IIT Bombay. He told the importance of Scilab workshop and also explain the execution process of this workshop. He explains the process of answering through Forum. Prof. Kannan also communicates with various remote centre coordinators and also solve their queries related to this workshop. In this session he also introduce all the technical staff who manage this workshop at IIT Bombay centre and also provide various help line numbers to solve real time problem.

21.2. Session 2:-

After the first session we had a 15 minutes tea break.

After this tea break we started session two in which we started our learning process through CD-content at remote centre (SKIT) and we learn the following methodology of Scilab:-

1 Scilab

- Click on "Select FOSS" or "All FOSS Categories" drop-down and choose "Scilab".
- Click on "Select Language" or "All Languages" drop-down and choose the lan- guage English, Hindi, Marathi ...) in which you wish to learn.
- Click on "Submit" button.
- You will see a list of tutorials based on your selection.
- Start with the _rst tutorial in the displayed list.

2 First 4 Tutorials

- The _rst 4 tutorials in the displayed list, explain about Scilab, its bene_ts, how to learn Scilab from spoken tutorials, Scilab Textbook Companion and Scilab Lab Migration activities
- It is recommended that you view these 4 tuto- rials one-by-one for a deeper understanding of Scilab and FOSSEE project's Scilab activities.

3 Fifth Tutorial: Installing

• Locate the topic "Installing" and click on it.

- To view the tutorial, click on the Play icon which is located in the player.
- Adjust the size of the browser in such a way that you are able to practice in parallel.
- Refer to the Installation Sheet for additional instructions on installing Scilab.
- Skip this tutorial if you already installed Scilab.

4 Sixth Tutorial: Getting Started

- Locate the topic "Getting Started" and click on it.
- To view the tutorial, click on the Play icon which is located in the player.
- Adjust the size of the browser in such a way that you are able to practice in parallel.
- Play-pause-practise all the commands shown in the tutorial.
 - a) Open Scilab on Linux OS
 - (a) The tutorials are explained on the LinuxOS.
 - (b) It will be easy for the Linux users to follow as instructed in the tutorial.
 - b) Open Scilab on Windows OS
 - (a) To open "Scilab" on Windows OS, double click on "Scilab" shortcut icon.
 - (b) Else click on Start>> Allprograms>>Scilab>>Scilab Console.
 - (c) This will open the "Scilab" console window.
- The diary() command stores the Scilab session in a _le, after you issue the command and not before that.
- Instructions to practise
 - (a) Create a folder on the "Desktop" with your "Name-RollNo-Component". (Eg. vin-04-scilab").
 - (b) Give a unique name to the _les you save, so as to recognize it next time. (Eg. "Practice-1-vin").
 - (c) Remember to save all your work in your folder.
 - (d) This will ensure that your _les don't get over-written by someone else.
 - (e) Save your work from time to time, instead of saving it at the end of the tutorial.
- Common instructions for Assignments
 - (a) Attempt the Assignments as instructed in the tutorial.
 - (b) Save your work in your folder.
- Common instructions to use Code les
 - (a) Click on the link "Code files" located near the player and save it in your folder.
 - (b) Extract the downloaded zip le.
 - (c) You will see all the code/source _les used in the particular tutorial.
 - (d) Use these _les as per the instructions given in the particular tutorial.
- Follow all the above instructions, till you com- plete the next 4 tutorials.
- Once each tutorial is complete, choose the next tutorial from the playlist which is located near the player.

21.3. Session 3:-

After the Second session we had a 45 minutes lunch break.

After this lunch break we started session three in which we continued with learning process through CD-content at remote centre and we learn the following new methodology of Scilab:-

5 Eleventh Tutorial: Scripts and Functions

- Locate the topic "Scripts and Functions" and click on it.
- At 2:20 The video shows Load into Scilab. This is now changed to File with Echo.
- At 3:25 pause the tutorial.
- Type pwd to check the present working directory.

- Change the directory using Change Directory shortcut icon, to the directory where you have saved the helloworld.sce file before using the exec command.
- Now resume the tutorial.
- Follow all the above instructions, till you complete all the tutorials in the series.

6 Thirteenth, Twenty-seventh, Twenty-eighth Tutorials: XCOS Introduction, Calling User denned functions in XCOS & Simulating a PID Controller using XCOS

For all Xcos tutorials, to add grids, legends, titles and borders, please type the following in the Scilab Console, after you have obtained the plot:

- For grid, type: xgrid
- For legend, type (if you have plotted two lines): hl = legend(["title for line 1", "title for line2"]);
- For title, type: xtitle("Title of graph");
- For borders, type: a = gca(); a.box = "on";

7 Twenty-fourth Tutorial: Digital Signal Processing

- Pause the tutorial at 3:28
- The video shows how to execute dft function. This function has been deprecated.
- Instead of typing dft, type fft.
- This will cause the 3rd term to NOT have the imaginary component, which has a magnitude of $10\Box 16$.
- Resume the tutorial.

8 Twenty-_fifth Tutorial: Control System

• At 11:58 The video shows a unit circle. In Scilab version 5.5.2 the unit circle is replaced by a line, which de_nes stability of the system.

21.4. Session 4:-

The last session was the Interaction session and Valedictory Session. It was again addressing by **Prof. Kannan Moudgalya**. In this session Prof. kannan was interacted with various remote centre coordinators and find the difficulties which was facing by the participants during the workshop hours and provide the solution.

Prof. Kannan point out the various use of Scilab in the field of Science and technology and also motivate all the participants to use Scilab in their future research work.

22. Attendance Sheet of Participants:-

Total number of registered participants: - **100** Total number of confirmed registration: - 99 Total number of present participants: - 94 Total number of absent participants: - 05

Attendance Sheet for Date : 2019-05-04 One day Workshop on Scilab - 4 May 2019

May 4th, 2019 to May 4th, 2019

Under the National Mission on Education through ICT, MHRD, New Delhi

1476 - Swami Keshvanand Institute Of Technology, Management and Gramothan , Jaipur

	Pai	ticipant		Sign	ature	
S No	Participant ID	Name	Session 1	Session 2	Session 3	Session 4
1	199074	Bhawna Chaudhary	(Brend	1 d hang	(b) hand	(my
2	199114	Rashmi Dadhich	and the second	A COMPANY	A	A Total
3	199196	Swati Arora	Lun	Jun	De	You
4	199197	Rukhsar Zafar	Pr	'Sur	'Ly	- Su
5	199233	Sushila Vishnoi	4	52	-52	- 52
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18	200227	Praveen Kumar Jain	Pjank	Pour	Prom	(Dian-
19	200258	Gloria Joseph	Our.	Que.	gue.	9.0
20	200288	Manju Choudhary	Hauju	Marja	Maryin	hlaugi
21	200337	Vijeta Khicha	Ducky	Churcis (Dence	Durcep
22	200345 •	Shanu Tripathi	ghang	/ hans	Spany	Sharry
23	200348 *	Aakriti Sharma	Pakiti	Ackini	Ankirti	Pakriti
24	200357	Deepa Modi	and	pel-	pur	aux

2019-05-04

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Karlash Soni (Wakshop Condinan)

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25	200363	Garima Gupta	Yavin	Jun	Speri	Yain
26	200374	Shalini Singhal	Shalin	Shalin	Shalin	Shalin
27	200391 #	Avadhesh Sharma	Ass	(BC)	(B)	B)
28	200413 *	Anurag Sharma .	#	4	*	4
29	200419	Vivek Sharma	Vivek-	Vivek	Vivek	Vivet
30	200458	Neha Janu	whele	Neli	Neh	Nels
31	200467	Manish Navlakha	M	(W)	M	M
32	200470	Chandan Singh Dhaked	Eind	Gir	Gir	Ginz
33	200474	Neha Mathur	Nelm	weld	well.	(Nels)
34	200547	Brajraj Sharma	123	1200	1212	120
35	200555 •	Sunita Gupta	Smite	winter	Lumber	Living
36	200563	Sunil Kumar	BU	B	BV	B
37	200574 •	Manoj Kumar	<	-ABS!	ENT-	>
38	200611	Anjana Sangwan	(A)s	(A)3 (A)s	As
39	200671	Monika Mathur	mouich	moules	mount	moule
40	200719	Rajat Goel		*		K
41	200727	Kajal Mathur	8	at .	8	5
42	200810	Rammurti Meena	DATE	NO	0	and the same of th
43	200820	Deepti Arela	Afre	The	Afre	offer
44	200835	Ajay Kumar Sharma	Non	Asis	Any	Agin
45	200839	Manasvi Dixit	lim	time	(m)	(mm)
46	200843	Komal Sharma	Comal	Gonal	Gome	Ognal
47	200845	Pawan Kumar Jain	1	1		A
48	200850	Rishi Vyas	(ph	B-	4	(B)
49	200935	Pawan Kumar Patidar	Pawan	Pawan	Pawan	Pawan
50	201001	Yogesh Agarwal	<	ABSEI	VT-	>
51	201090	Sumit Gupta	Symit	Sunt	Symp	Just
52	201248	Pramila Kemawat	13	1	RE-	15
53	201263	Jyoti Arora	Mel	Mojs	Note	N. KOU

2019-05-04

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54	201271	Ganpat Singh Chauhan	lyst	Gust	God.	hij.
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57	201465	Sanwta Ram Dogiwal	S.m	Spin	Dr.	Str
58	201503 *	Ruchika Khandelwal	<u> </u>	-ABS	ENT-	7
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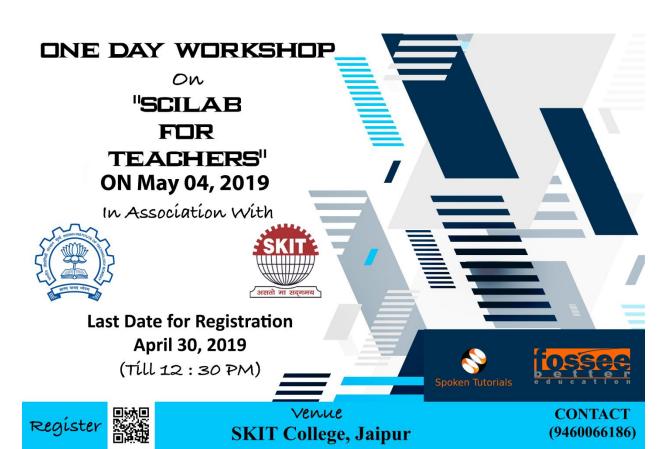
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23. Various Images for Publicity:-









24. Glimpses of Workshop:-



Fig: - Registration Process for Scilab workshop

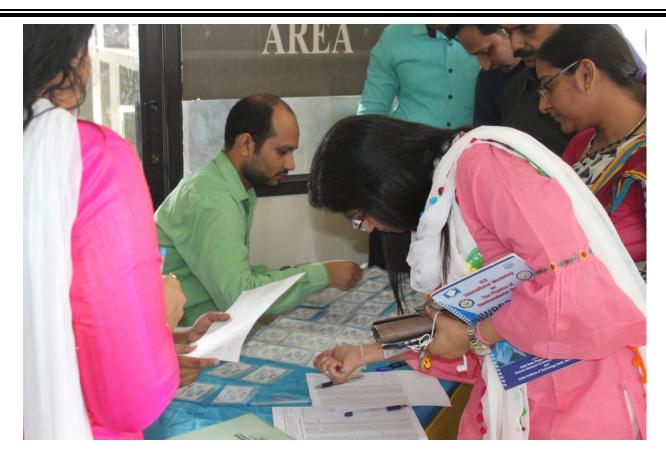


Fig: - Id cards distribution for registered participants.



Fig: - Inauguration session of Scilab workshop



Fig: - Interaction session with Prof. Kannan Moudgalya



Fig: - Technical Session (learning of Scilab concepts)



Fig: - High-Tea

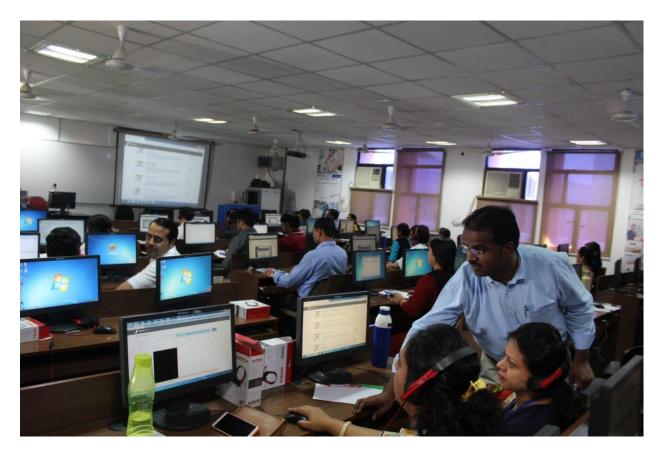


Fig: - Technical Session (learning of Scilab concepts)



Fig: - Valedictory function of Scilab workshop



Fig:- Group photo of Scilab workshop participants.



Fig:- Group photo of Scilab workshop participants.

25. Feedback of Participants:-



Feedback Form

One day Workshop on 'Scilab' for Teachers on 4th of May 2019 Under 'Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)', MHRD, Govt. of India Conducted by The Teaching Learning Centre (ICT),

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One day Workshop on 'Scilab' for Teachers on 4th of May 2019 Under 'Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)', MHRD, Govt. of India



Conducted by The Teaching Learning Centre (ICT),
Supported by FOSSEE & Spoken Tutorials
Organized by

IIT Bombay &

Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

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One day Workshop on 'Scilab' for Teachers on 4th of May 2019 Under 'Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)',



MHRD, Govt. of India

Conducted by The Teaching Learning Centre (ICT), Supported by FOSSEE & Spoken Tutorials Organized by

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Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

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One day Workshop on 'Scilab' for Teachers on 4th of May 2019
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Feedback Form

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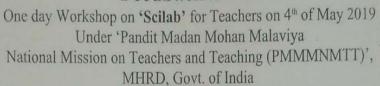
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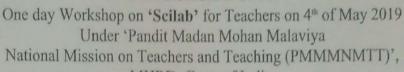
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Feedback Form





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26. Words of Acknowledgement:-

I would like to thanks **Prof. Kannan Moudgalya**, Principal Investigator and IIT Bombay to conduct such a knowledgeable and useful workshop.

I would also like to thanks **Dr. S.L. Surana**, Director (Academics) and **Prof. (Dr.) Ramesh Kumar Pachar**, Principal (SKIT) to allow me to conduct this workshop in the college campus.

I would also like to thanks **Prof.** (**Dr.**) **Anil Chaudhary**, HOD IT and **Prof.** (**Dr.**) **C.M. Choudhary** HOD CSE to allow me to coordinate this workshop in the department and provide me the workshop venue (IAI lab) to conduct this workshop.

I would also like to thanks our remote centre coordinator **Dr. Mukesh Kumar Gupta** to provide such a great opportunity and golden guidance to organize this workshop.

I would also like to thanks all the technical members and staff to provide their valuable time to successful organizes this workshop.

I would also like to thanks all the Participants to their registration and participation in this workshop.







======================================	hanks	