





## One Week National Seminar (Virtual) on SCILAB (29-04-2024 to 04-05-2024)

<p><b>Free for Earlier Participants</b> Earlier Participants Fee: Rs. 50/- New Participants Fee: Rs. 150/- Registration Link: <a href="#">Click Here</a> or Copy the Below Link <a href="https://docs.google.com/forms/d/e/1FAIpQLSfgthfkvjn7UupzdEVeCx3Hwgq8RBraPnQ-HDw7qm-twj-u0g/viewform?vc=0&amp;c=0&amp;w=1&amp;flr=0">https://docs.google.com/forms/d/e/1FAIpQLSfgthfkvjn7UupzdEVeCx3Hwgq8RBraPnQ-HDw7qm-twj-u0g/viewform?vc=0&amp;c=0&amp;w=1&amp;flr=0</a></p> <p><b>Payment Details:</b> Name of Account Holder CSSRSRRM DEGREE COLLEGE State Bank of India, Kamalapuram Branch Account Number: <b>34819780249</b> IFSC Code: SBIN0001267</p> <p>UPI ID : <b>cssrsrrmde@sbil</b></p>  <p>69 x 8.26 in</p>	<p><b>About Workshop &amp; Scilab</b> The National workshop is to guide and to provide a Hands on Experience, on Scilab, a free and open source tool with numerical computational package. This is used for UG and PG Students, and also for young researchers in engineering and scientific application mode at research level. The main goal of the programme is to explore "Scilab as an Alternative to MATLAB".</p> <p><b>Topics to be Covered:</b></p> <ul style="list-style-type: none"> <li>• Introduction to Scilab with Installation Process.</li> <li>• Basic Operations, Mathematical Matrix, Inbuilt functions, Variables Scripts, Looping/Conditional Statements.</li> <li>• <b>Calculus:</b> Differentiation, Integration and Ordinary Differential Equations.</li> <li>• User Defined functions.</li> <li>• Plotting 2D, 3D Curves &amp; Contour Curves</li> <li>• Polynomials, Lists, Boolean.</li> </ul> <p style="text-align: center;"><b>Resource Person</b> <b>Dr Rajender Kumar</b> Associate Professor, BPS Mahila Viswavidyalaya, Haryana, India</p>	 <p>CSSR &amp; SRRM Degree &amp; PG College Reaccredited NAAC "A" Grade with 3.22 CGPA (Cycle-II) Kamalapuram, YSR, A.P., India- 516289</p> <p><b>National Workshop on SCILAB (29-04-2024 to 04-05-2024) (Virtual Mode) Time: 03:00PM to 04:00 PM</b></p> <p><b>Organised By Department of Mathematics</b></p> <p>Programme Convenor: <b>Dr. G. Vinod Kumar</b> Head, Department of Mathematics Ph: 9014064906 (Whatsapp), E-Mail: gvkphd@gmail.com</p>
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### Programme Schedule for One Week Workshop on SCILAB (29.04.2024 – 04.05.2024)

Organised by  
Department of Mathematics

**Note: LAPTOP/Personal Computer is Compulsory if Hands on Experiences needed.**

Sl. No.	Date & Timing	Topic
1	<b>Day 1:</b> 29-04-2024, 02:30 PM	<ul style="list-style-type: none"> <li>• <b>SCILAB Downloading &amp; Installing (02:30 PM to 03:00 PM)</b></li> <li>• <b>Introduction to Scilab, Comparing Scilab V/S Matlab</b></li> <li>• <b>Basics:</b> Explain each and every icon in software, Desktop Environment for Scilab, Console as calculator, Sci Notes</li> <li>• Basic Operators in Scilab, Key Commands, variables in scilab, writing script file using scinotes.</li> <li>• <b>In-built functions:</b> Exponential, Logarithmic, Trigonometric, Inverse, Hyperbolic, Algebraic etc.</li> </ul>
2	<b>Day 2:</b> 30-04-2024, 03:00 PM	<ul style="list-style-type: none"> <li>• Matrix Representation in Scilab,</li> <li>• <b>Matrix operations:</b> Arithmetic operations, Logical Operations</li> <li>• <b>Standard matrices:</b> Identity, zero, ones, random</li> <li>• <b>Properties of Matrices:</b> Determinant, Rank, Inverse, Adjoint and etc.</li> <li>• <b>System of Equations:</b> converting into matrix, Gauss elimination method, Gauss Jordan method, Gauss Seidal Method, LU</li> </ul>

		decomposition, QR factorization, Eigen values and Eigen vectors:
3	<b>Day 3:</b> 02-05-2024, 03:00 PM	<b>Conditional and Looping Operations:</b> IF, IF ELSE, WHILE and FOR
4	<b>Day 4:</b> 01-05-2024, 03:00 PM	<b>Plotting in Scilab:</b> 2D and 3D Plot, plot colours, plot styles, plot options for Cartesian, Polar, Function plots, surface plots, contour plots, histograms, Curve Fitting etc.
5	<b>Day 5:</b> 03-05-2024, 03:00 PM	<ul style="list-style-type: none"> <li>• Function in Scilab, syntax for writing function in scilab</li> <li>• Writing function for different problem</li> <li>• <b>Calculus:</b> Limits, Differentiation, Integration, Vector</li> <li>• <b>Analysis:</b> magnitude, dot, curl, Complex numbers</li> <li>• <b>Series:</b> sum of series, Taylor series.</li> </ul>
6	<b>Day 6:</b> 04-05-2024, 03:00 PM	<ul style="list-style-type: none"> <li>• <b>Solutions of ODE in Scilab</b></li> <li>• <b>Numerical solutions:</b> Euler method or any other method etc</li> </ul>

**Platform is ZOOM**

### Report:

The Department of Mathematics, CSSR & SRRM Degree & PG College, Kamalapuram, Kadapa organised a 5 Day National Seminar on SCILAB Software Tool during the period 29-04-2024.

The session on the first day was started with inauguration session by the beloved chairman & Principal **Sri C V Rajagopala Reddy Garu**, the chief patron of the programme and gave a brief introduction about the college, and the programme. Later on, the session is handed over to the programme convenor **Dr G Vinod Kumar**, Head, Department of Mathematics, the convenor thanked the chief patron and addresses with brief introduction about the Seminar and key features of the programme to the participants.

Next to the Introduction, Dr G Vinod Kumar, have given a short introduction about the Key Speaker of Day-1, Session **Dr Rajender Kumar**, Associate Professor, Department of Mathematics, BPS Mahila Vishwa Vidyalaya, Haryana and the session is handed over to resource person and he explained clearly about the software installation and usage and application in all fields of study.

### YouTube Link:

Day 1: - [https://www.youtube.com/watch?v=fc\\_g7xu3R3s](https://www.youtube.com/watch?v=fc_g7xu3R3s)

Day 2: <https://www.youtube.com/watch?v=9pti3jf8DdY>

Day 3: <https://www.youtube.com/watch?v=D9PMpEphTbU>

Day4: [https://www.youtube.com/watch?v=v\\_lupKxvKOk](https://www.youtube.com/watch?v=v_lupKxvKOk)

<https://www.youtube.com/watch?v=gQYetC-Ovnk&t=3s>

Day 5: <https://www.youtube.com/watch?v=NO9BUGqA4Sg>

Finally at the end of the programme, the convenor concluded with vote of thanks.

**Number of Participants: 160**, that includes all categories of participants like PG Students, Research Scholars, Lecturers, Professors, Academicians and other like industrialists from various Government and Private, Degree and Pg Colleges, Engineering Colleges, Research Labs, Universities that covered nearly 18 states from India.

Feedback: All the participants are very much happy and provided a good feedback and encouraged us to conduct more programmes related to this topic and other topics, and 100 % percent said **Yes** that they are willing to participate in future programmes that are organised by the department.

### **Sample Certificate:**

