CSSR & SRRM
DEGREE & PG COLLEGE
–GATEWAY TO EDUCATION–
Accredited by NAAC with A Grade
13/521, Reddy Colony, Kamalapuram-516 289, Kadapa Dist. A.P.
(Affiliated to Yogi Vemana University & Recognized Under 2(f) & 12(B) of UGC Act 1956)
cssrandsrrmdc@gmail.com www.cssrandsrrmdc.org www.cssrandsrrm.in Ph : 08563 274373

Seven Day Short Term Training Programme (Virtual)
on
MATLAB
(08-04-2024 to 14-04-2024)

About College

CSSR & SRRM Degree & PG College, was established in the year 1992 under the aegis of CSSR and SRR Educational Society, in a rural area Kamalapuram, Kadapa, Andhra Pradesh, by Sri C. V. Rajagopala Reddy the Chairman of the institution. The College is permanently affiliated to Yogi Vemana University, Kadapa, Andhra Pradesh, India. The institute has a beautiful campus full of greenery which is spread of 4 acres. It is the only college to Successfully complete two NAAC cycles with B++ in the 2017 and A in the year 2023. The institution is now ready to get a new mile stone "Autonomous status" by the UGC,India. The institution have good research potentiality and also organised many national and international seminars, conferences and workshops.

Aim of the Programme:

To provide basic and advanced level knowledge on MATLAB to UG & PG Students, Young Research Scholars and Academicians for their Academic Enrichment and to fulfil the needs of research work.

CSSR & SRRM Degree & PG College
Re-Accredited with NACC 'A' grade 3.22 CGPA (Cycle-II)
Permanently affiliated to Yogi Vemana University
Kamalapuram, YSR Dist AP India-516289

Organised by
Department of Mathematics

Resource Person:

Dr. B. Mallikarjuna
Assistant Professor, Department of Mathematics
BMS College of Engineering, Bengaluru.

Short Term Training Programme
(Virtual)
on
MAT LAB
(08th - 14th April 2024)-Time: 03:00 PM-4:00 PM

Topics to be Covered:

- Introduction to MATLAB, Installation, Explanation of Each & Every Icon in the Tool, Basic Operations, Inbuilt Function.
- Basic Mathematics, Number Theory Topics, Calculus, Vector Analysis, Complex Analysis, and Looping Operations.
- Matrices, Basic Operations of Algebra and Visualization of 2D & 3D Plots, Histograms and Curve Fitting etc
- Solving Numerical Method & Finding Analytical and Numerical Solutions Using MATLAB.
- Statistical and Probability Topics

UPI ID : cssrsrrmdc@sbi

BHIM UPI

Registration Fee:
For Previously Registered Participants: Rs: 250/-
For New Participants: Rs: 350/-
Participants Can Pay Payment through
GPay / Phonepe & Net Banking
Name of A/C: CSSRSRRM DEGREE COLLEGE
A/C No: 34819780249
State Bank of India, Kamalapuram Branch
IFSC Code: SBIN0001267

Participants Can Register Through Link
https://docs.google.com/forms/d/e/1FAIpQLSc-ulbity7afuTp-UrvuvjC43gybnA3m4kn5OZD522o-yr1rg/viewform?vc=0&c=0&w=1&flr=0&pli=1

For Any Quires Please Contact Programme Convenor **Dr.G.Vinod Kumar** 9014064906 gvkphd@gmail.com

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Programme Schedule
for
8 Day-Short Term Training Programme on MATLAB

Organised by
Department of Mathematics
Note: LAPTOP/Personal Computer is Compulsory if Hands on Experience is needed.

Sl. No.	Date & Timing	Topic
1	**Day 1:** 08-04-2024, 02:30 PM	• **MATLAB Online Installation with 30 Day Trail, (02:30 PM to 03:00 PM)** • **Introduction to MATLAB,** • **Basics:** Explain each and every icon in software, Basic operations: arithmetic operations, Variables, • **In-built functions:** Exponential, Logarithmic, Trigonometric, Inverse, Hyperbolic, Algebraic, Inline and Autonomous , Function solve, Root of a function or polynomial, Function value, Vpasolve, • **Number theory:** Elementary operations- GCD, LCM, Number sequences, prime numbers. • **Calculus:** Limits, Differentiation, Integration, Vector **Analysis:** magnitude, dot, curl, Complex numbers • **Series:** sum of series, Taylor series, • **Looping Operations:** IF, IF ELSE, WHILE and FOR
2	**Day 2:** 09-04-2024, 03:00 PM	• **Matrix operations:** Arithmetic operations • **Standard matrices:** Identity, zero, ones, random, • **Properties of Matrices:** Determinant, Rank, Inverse, Adjoint and etc. • **System of Equations:** converting into matrix, Gauss elimination method, Gauss Jordon method, Gauss Seidal Method, LU decomposition, QR factorization, Eigen values and Eigen vectors: • **Visualization:** 2D and 3D Plot, plot colours, plot styles, plot options for Cartesian, Polar, function plots, surface plots, contour plots, histograms, curve fitting,
3	**Day 3:** 10-04-2024, 03:00 PM	**Numerical Methods using MATLAB** • DSolve syntax for DE with and without conditions, system of DE, • **Numerical solutions:** Euler method, RK2 and RK4.
4	**Day 4:** 11-04-2024, 03:00 PM	**Analytical solutions of ODE using MATLAB** • DSolve syntax for DE with and without conditions, system of DE
5	**Day 5:** 12-04-2024, 03:00 PM	• **Numerical solutions of ODE using MATLAB** • **Numerical solutions:** Euler method, RK2 and RK4
6	**Day 6:** 13-04-2024, 03:00 PM	• Probability and Statistical Topics
7	**Day 7:** 14-04-2024, 03:00 PM	• Data Science Related Topics
8	**Complimentary Session Day 8:** 15-04-2024, 03:00 PM	• Solutions of ODE and PDE in MATLAB Using Spectral Methods

The Department of Mathematics, have organised a **"Seven Day Short Term Training Programme (Virtual) on MATLAB",** from 08-04-2024 to 14-04-2024.

The Programme was started with the introduction of Resource Person **Dr Mallikarjuna Garu**, Assistant Professor, BMR Institute of Technology, by the organiser Dr G Vinod Kumar, Head, Department of Mathematics, Bengaluru As stated above the programme was held in very informative manner, all the topics related to Matlab like virtual Matlab installation with free trial version and introduction from the basic level to application level used in research are discussed and provided hands on Training every day during the sessions. Simultaneously, with sharing the knowledge the resource person has cleared all the doubts raised by the participants and gave the informative material related to Matlab. Also, with request of participants, the resource person gave his Mobile no and E-Mail Id for further assistance and to have research collaboration with any interested participants. Finally, the programme ended with vote of thanks by the organiser Dr G Vinod Kumar.

All the session are recorder and given Live through Zoom Cloud and YouTube Channel of College

Evidence:

Day I

YouTube Link: https://www.youtube.com/watch?v=gojyfc1EXgg
Zoom link:
https://us06web.zoom.us/rec/share/EpvX8Nlb8Yxl__U8-cTdTX3LVQad97i5RjLELTglGq2l6GafkTloOg-mZ7-ztSo.X_7--YSzJ5gS9Yxi
Passcode: *h$B1yug

Day II

YouTube Link: https://www.youtube.com/watch?v=z1Vg4JsLt8w&t=2s

Zoom Link:

https://us06web.zoom.us/rec/share/dovZiCjoj5EWu2vv2QLx2UFHxg4ih9zRY6jl2BBduxNIRIea88nPQegA8pKeF2ZB._UnnMeomfKfYxKg-

Passcode: 3?Sl%*8!

Day III

YouTube Link: https://www.youtube.com/watch?v=4PJZNcQ5g3o

Zoom Link:

https://us06web.zoom.us/rec/share/I6R4AJjzQiVFexfcS8_C2ENghmOM7XIFAqNOrK09LzaRA5y3GivucPS2sn3SvQsX.xhNXpHPjU9vZR_S_

Passcode: C%M$u*6$

Day IV

YouTube Link: https://www.youtube.com/watch?v=xaSNWZ43940&t=275s

https://us06web.zoom.us/rec/share/9qxvXGqoEUICCMvNZIeVDDpGoVdwGbb35q2Ga-LTRdgric7CvOGegRbDotU9LnQH.VEwTvun3uoy_h0yU

Passcode: 3C5@LeJ7

Day V

YouTube Link: https://www.youtube.com/watch?v=BCly9joz6oc

Zoom Link:

https://us06web.zoom.us/rec/share/dtWy1nVyqLsp91GVs2ErwEdAIwhdPN24aD0XlFdakxL08TDftFs5x2aPq1_ZjXW7.Pn0VxtCY3qR75Ug-

Passcode: Mz+=.*m0

Day VI

YouTube Link: https://www.youtube.com/watch?v=v0DHArSx4C4&t=3s

Zoom Link:

https://us06web.zoom.us/rec/share/MGdncIaUru0aNdCacfvNsPRAw3lCl8ypZvjJLDVHSgozF3k0kHqmzoOu3tjMUyQ1.F6p-TpNpzmBszFz3

Passcode: 9G&&eX8^

Day VII

YouTube Link: https://www.youtube.com/watch?v=LOFjkf0o53o&t=1575s

Zoom Link:

https://us06web.zoom.us/rec/share/Z-DL4yZ7SC_qaBg_odR-BQG-NSupmlOf6MGLzSH9gcPjBlIO9UuKydsxedlOyV90.XJEEqn1TERQzJf5h

Passcode: fy+t3BeW

Day VIII

YouTube Link: https://youtube.com/live/CSM37piY9JI

Model Certificate:

CSSR & SRRM Degree & PG College

Kamalapuram, YSR, A.P., India

(Affiliated to Yogivemana University, Kadapa)

Re-accredited with 'A' Grade by NAAC

CSSR 455

Certificate of Participation

This is to certify that **Mr Penti Rajesh,** Research Scholar, Department of Physics, Yogi Vemana University, Kadapa, A.P., has attended **Seven Day Short-Term Training Programme**, on *"MATLAB"* organised by Department of Mathematics, from **08-04-2024 to 14-04-2024.**

Dr. G. Vinod Kumar
Convenor

C V Rajagopala Reddy
Principal