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Dr. B. Rushi Kumar, HoD, Mathematics, SAS, VIT

Organizing Secretaries

Dr. Hemant Kumar Nashine

Dr. Raja Das

Math. Graphics. Programming.

Whether you're analyzing data, developing algorithms, or creating models, MATLAB is designed for the way you think and the work you do.

Registration Details

Registration for the event can be done by filling-out the following VIT online form on or before **17th October, 2019**.

http://info.vit.ac.in/Events-VIT/MATLAB-Workshop-Beginner/apply.asp

Registration Fee: Rs. 500.00 per participant

Number of participants: 50

Schedule of Instructions

This is a Two-Day program scheduled on 19th and 20th October, 2019 and will be conducted in different sessions from 10.00 am to 5.00 pm everyday.

Duration: 14 hours

Venue: TT513

Note: Department of Mathematics, School of Advanced Sciences will award the Certificate of Participation to each participant after completion of the program. .

For further details and query, kindly contact

Dr. Hemant Kumar Nashine and Dr. Raja Das

Department of Mathematics, SAS

VIT, Vellore - 632014

Ph. 87707 71319 / 8870216958
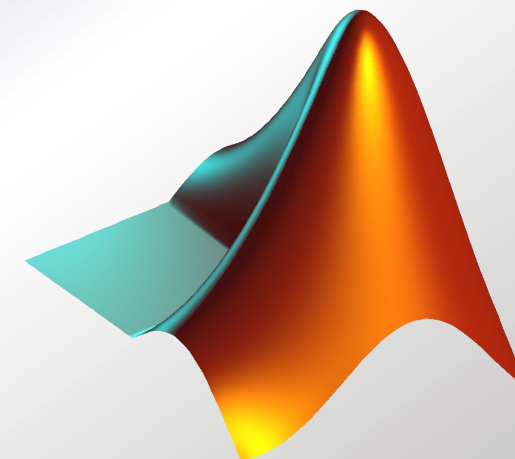
Email: hemant.nashine@vit.ac.in

rajadas@vit.ac.in /

VIT®

Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)
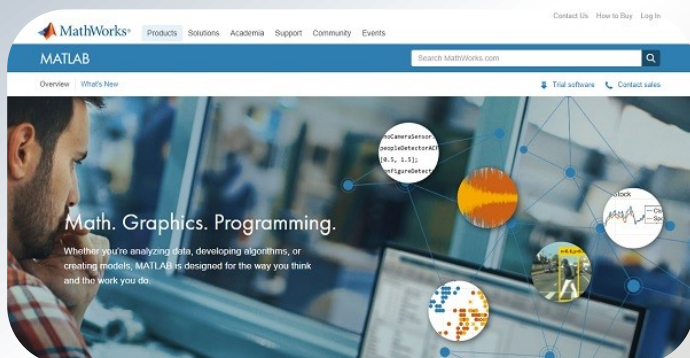
Two Days Workshop

on

MATLAB for Beginners

19th - 20th October 2019

DEPARTMENT OF MATHEMATICS

SCHOOL OF ADVANCED SCIENCES

VIT, VELLORE-632014

VIT

Vellore Institute of Technology (VIT) was founded in 1984 as Vellore Engineering College by the Chancellor Dr. G. Viswanathan. VIT attracts students from all the 29 states of India and more than 41 different countries because of its academic excellence. The credentials of VIT in academics and research, has placed VIT in the 13th position among the engineering institutions and VIT Business School has placed 17th position among the business schools in India by NIRF, Govt. of India Ranking. The world ranking body namely the QS has given 4 STAR rating to VIT, with that VIT becomes the first institution in India to have the 4 STAR rating. In addition to this, the consortium of industries, FICCI has adjudged VIT as the "Excellence in Faculty". VIT has the record of publishing maximum number of SCOPUS Indexed Research Journal papers in 2016, among Indian Universities, overtaking all the premier institutions. VIT has also completed 3 cycles of NAAC accreditation and has been rated as "A" grade institution. In addition, VIT also has obtained for the coveted ABET accreditation by US agency. VIT has introduced many innovations in academic processes, which adds value to every student. FFCS (Fully Flexible Credit System), PBL (Project Based Learning) for better learning, fully digitized academic portals that assists students in equipping themselves for 2020 market place, Math-a-thon / Stat-a-thon as part of curriculum exercise which kindles the interest and the curiosity of students, which moulds them to be better problem solvers, 8th module in every subject being handled by industry experts, making the students contextualize the concepts they study in the classroom, are a few of the innovations that VIT has introduced.

SAS

The School of Advanced Sciences (SAS) includes Mathematics, Physics and Chemistry disciplines. The school offers M.Sc., M.Phil. & Ph.D. programs. The faculty of the school comprises qualified and goal-oriented members whose research expertise includes major frontier areas in Mathematics, Physics and Chemistry. Currently, the faculty strength of the school is 186.

Department of Mathematics

Mathematics, the queen of sciences, is an essential component of all engineering disciplines. The Department of Mathematics at VIT comprises of 108 faculty members dedicated to fulfil the needs of all the engineering departments. All the faculty members are doctorates and are actively involved in research activities in addition to the regular teaching activities. The faculty members of the Department are specialized in frontier areas of Mathematics such as Algebra, Functional Analysis, Complex Analysis, Computational Fluid Dynamics, Mathematical biology and ecology, Biogeochemical modelling, Geometric Function Theory,

Network and Graph Theory, Stochastic Processes, Queuing Theory, Coding Theory, Theory of Computation, Fuzzy Logics, Optimal Control Problems, Numerical Methods etc. The Department, till date, has produced 43 PhDs in different branches of Mathematics. Several research projects of the department are financially supported by some of the leading funding agencies such as CSIR, DRDO, DST and NBHM. The department is also serving the requirements of the leading industries through consultancy projects.

Course Description and Objectives

The course provides a gentle introduction to the MATLAB computing environment, and is intended for beginning users and those looking for a review. It is designed to give students a basic understanding of MATLAB, including popular toolboxes. The course consists of interactive lectures and sample MATLAB problems that generally they face. Hands-on session helped students with the syntaxes and functions for use in programming. The tool helps at various stages in studying subject related to processing and analysis during regular subjects throughout courses. No prior programming experience or knowledge of MATLAB is assumed. Concepts covered include basic use, graphical representations and tips for designing and implementing MATLAB code.

The main objectives are:

1. Understanding the MATLAB environment
2. Being able to do simple calculations using MATLAB
3. Being able to carry out simple numerical computations, analyses and graphics using MATLAB

Upon successful completion of this course, the student should be able to:

1. Understand the main features of the MATLAB development environment
2. Use the MATLAB GUI effectively
3. Basic syntax, Looping, 2D & 3D Ploting
4. Design simple algorithms to solve problems
5. Write simple programs in MATLAB to solve scientific and mathematical problems
   A. Solution of simultaneous linear equation
   B. Solution of simultaneous non-linear equation
   C. Regression, splines and polynomial interpolation
   D. Solution of ordinary differential equation
   E. Numerical Integration
   F. Basics optimization procedure

Audience:

The course is open to all VIT students & faculties. In particular it is for:

1. All Undergraduate, Graduate and Postgraduate students with an interest in numerical computing and numerical simulations
2. Students who will need MATLAB to prepare their project, research work.