

## About MATLAB

➤ MATLAB, which stands for Matrix Laboratory, is state-of-the-art mathematical software Package, which is used extensively in both academic and industry. It is an interactive program for *numerical* computation and data visualization, which along with its programming capabilities provides a very useful tool for almost all areas of science and engineering. Unlike other mathematical packages, such as MAPLE or MATHEMATICA, MATLAB cannot perform Symbolic manipulations without the use of additional Toolboxes. It remains however, one of the leading software packages for *numerical* computation.

➤ It is a high-level technical computing language and interactive environment for algorithm development, data visualization, data analysis, and numerical computation. Using MATLAB, you can solve technical computing problems faster than with traditional programming languages, such as C, C++, and Fortran.

➤ You can use MATLAB in a wide range of applications, including signal and image processing, communications, control design, test and measurement, financial modeling and analysis, and computational biology. Add-on toolboxes (collections of special-purpose MATLAB functions, available separately) extend the MATLAB environment to solve particular classes of problems in these application areas.

➤ As you might guess from its name, MATLAB deals mainly with matrices. A scalar is a 1-by-1 matrix and a row vector of length say 5, is a 1-by-5 matrix. One of the many advantages of MATLAB is the natural notation used. It looks a lot like the notation that you encounter in a linear algebra course. This makes the use of the program especially easy and it is what makes MATLAB a natural choice for numerical computations.

➤ The purpose of this WORKSHOP is to familiarize the beginner to MATLAB, by introducing the basic features and commands of the program. It is in no way a complete reference and the PARTICIPANTS are encouraged further enhancing his or her knowledge of MATLAB by reading some of the suggested references at the end of this WORKSHOP.

## KEY FEATURES OF MATLAB.

- High-level language for technical computing.
- Development environment for managing code, files and data.
- Interactive tools for interactive exploration, design and problem solving.
- Mathematical functions for linear algebra, statistics, Fourier analysis, filtering, optimization, and numerical integration
- 2-D and 3-D graphics functions for visualizing data.
- Tools for building custom graphical user interfaces.
- Functions for integrating MATLAB based algorithms with external applications and lan languages, such as C, C++, Fortran, Java, COM, and Microsoft Excel.

## Participants.

- Computer Professional.
- Faculty of Computer Science.
- Faculty/ Student from BCA, MCA, Engineering, and Science Colleges.
- Students of Computer Science in any faculty.
- A person who wants to know more about MATLAB.

### \* Date of workshop \*

28<sup>th</sup> January 2010.

### \* Last Date of Registration \*

24<sup>th</sup> January 2010.

### For more details contact:

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Convener

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One Day State Level Workshop On

## Prologue and Relevance of MATLAB

Organized by

SHRI R.K. PARIKH ARTS AND SCIENCE COLLEGE,  
PETLAD

(Accredited by NAAC 'B' Grade)

DEPARTMENT OF COMPUTER SCIENCE

Supported By U.G.C. Approved

Career Oriented Programme (COP)

Name: \_\_\_\_\_

(Block Letters)

College / Institute: \_\_\_\_\_

Class / Year: \_\_\_\_\_

Registration Fees : Student 50 Rs.

Faculty/ Other 100 Rs.

Phone: (O) \_\_\_\_\_ (M) \_\_\_\_\_

E-mail: \_\_\_\_\_ Mandatory

D. D. No \_\_\_\_\_ Dated \_\_\_\_\_ Rs. \_\_\_\_\_

Drawn in favors of Principal, Shri. R .K. Parikh Arts and Science College at Petlad)

Participant's Signature

Signature

Head/Principal

\*Form is also available at our website petladcollege.com

\*Please Apologize us for Spot Registration.

Dear Principal/Head of the Department

We are please to inform you that the Department of Computer Science, Shri R.K. Parikh Arts and Science College, Petlad is organizing State level Workshop on “**Prologue and Relevance of MATLAB**” to be held on 28<sup>th</sup> January 2010.

I am sending necessary announcement brochure for distribution among faculty members and students. Extra copies for participants can be generated by Xeroxing the brochure. Please encourage faculties and students to actively participate in the workshop.

I really appreciate your co-operation in every event organized by our institute. I expect participants of students and Faculties from your College/Department. I am sure you will do the needful to make this workshop successful.

Please feel free to contact me in case of any clarification or more details.

**Prin. Dr. Vimal Joshi**  
**Convener**

\* Please Apologize us for Spot Registration

#### PROGRAMME SCHEDULE

Registration : 09.30 am

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Inaugural Function

10.10 to 10.45 am

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**Key Note Speech: 10.55 to 11.55 am**  
EXPLORING THE USE OF MATLAB ENVIRONMENT  
& PROGRAMMING

**Dr. N.N. Jani**

Director – MCA Programme  
S.K.Patel Institute of Management  
Dean – Faculty of Computer & IT  
Kadi Sarva Viswavidyalaya, Gandhinagar

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**Session – I: 12.00 to 12.55 pm**  
GRAPHICS AND DATA VISUALIZATION IN MATLAB  
**Prof. Nidhi Divecha**

S.K.P.I.M. - MCA  
Kadi Sarva Viswavidyalaya, Gandhinagar

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**01.00 to 01.45 pm : Lunch**

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**Section – II: 01.45 to 02.45 pm**  
CONM AND INTRODUCTION OF SIMULATION  
**Prof. Manisha Attri**

S.K.P.I.M. - MCA  
Kadi Sarva Viswavidyalaya, Gandhinagar

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**Tea : 02.45 to 02.55 pm**

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**Open House Discussion**  
**02.55 to 03.30 pm**

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**Valedictory : 03.30 pm**

**OND DAY**

**STATE LEVEL WORKSHOP**

**ON**

**Prologue and Relevance of  
MATLAB**

**28<sup>th</sup> January 2010**

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**COLLEGE, PETLAD**

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**Please send your Registration form to**

**Dr. Uday Vyas**

Co-ordinator

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