Where The Future Begins...
SSIT
Private Limited

MatLab Syllabus Contents

I. Introduction to MatLab

1. MatLab as {best} calculator

2. Standard MatLab windows

3. Operations with Variables

- Naming
- Checking existence
- Clearing
- Operations

4. Arrays

- Column and rows: creation and indexing
- Size and length
- Multiplication, Division, Power
- Operations

5. Writing script files

- Logical variables and operators
- Flow control
- Loop Operators

6. Writing functions

- Input/output arguments
- Function visibility, path
- Example: MatLab startup

7. Simple graphics

- 2D plots
- Figures and subplots

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II. Data and data flow in MatLab

1. Data types

- Matrix, String, Cell and Structure
- Creating, accessing elements and manipulating of data of different types

2. File Input-Output

- MatLab files
- Text files
- Binary files
- Mixed text-binary files

3. Communication with external devices

- Serial port
- Parallel port
- Sound port
- Video port
- MatLab course fall 2004

III. Function minimization and parameters search

1. Polynomial fit

- 1D & 2D fits
- Data windowing
- Error bounds

2. Arbitrary function fit

- Error function
- Fixing Parameters

3. Goodness of fit

- 2 criteria
- Error of parameters

IV. Handle graphics and user interface

1. Pre-defined dialogs

2. Handle graphics

Graphics objects

- Properties of objects
- Modifying properties of graphics objects

3. Menu-driven programs

- Controls: Ui menu and Ui control
- Interactive graphics
- Large program logic flow.