BAHIRAM TECHNO SYSTEMS

NAGPUR

&

TADOBA SOLUTIONS PVT LTD

RAIPUR

(Incubated at IBITF, IIT Bhilai)

BAHIRAM TECHNO SYSTEMS

NAGPUR

Bahiram Techno Systems, a cutting-edge electronics company that's poised to revolutionize the industry. Bahiram Techno Systems is a newly established electronics company that specializes in designing, developing, and manufacturing a wide range of electronic products and solutions. The company's mission is to provide innovative, reliable, and cost-effective solutions that cater to the evolving needs of the industry. We also carry business on Solar PV Systems Commissioning Installation, Importers, Exporters, Traders, Buyers, Sellers, Retailers, Wholesalers, Suppliers, Distributors or otherwise deal in Solar Photovoltaics Systems, sale/resale of all types of Batteries, Solar-based Home Products including Solar Street light, Solar Fan, etc. and to deal, buy, sell and hire/lease all apparatus and things required for or used in connection with generation, distribution, supply, accumulation of Solar Energy and To carry on the business of consultants, advisors, auctioneers for all type of Solar Energy Plants and to undertake research and development in the field of solar energy and otheralliedfields. The training on cutting-edge technologies, more prominently in solar technologies, the Internet of Things, and machine learning is also provided under BahiramTechnoSystems.

TADOBA SOLUTIONS PVT LTD

RAIPUR

Tadoba Solutions Private Limited is a Private incorporated on 17 July 2018. It is classified as Non-government company and is registered at Registrar of Companies, ROC Chhattisgarh. Its authorized share capital is Rs. 100,000 and its paid up capital is Rs. 100,000. It is involved in Manufacture of other electrical equipment n.e.c. Developer of electrical and electronics space technology designed for designing, manufacturing, modifying and maintenance of products of electronic components and electronic systems. The company offers indigenous electromechanical products and other indigenous product for personal and commercial us, enabling clients to get solar photovoltaics. Its Email address is tadobasolution@gmail.com and its registered address is Officers Park Colony, E/07, Old dhamtari Road , Mana Camp, Chattisgarh, India - 492015.

Course Module and Structure

Contents

Part I.
Python

1. Basics of Core Python (Target Package)

1.1. Course Contents:

1. **Introduction to Python Language:**
    - Introduction
    - Keywords
    - Identifiers,
    - Print statement,
    - Escape Sequences,
    - Importance of Comments,
    - Indentation,
    - Arithmetic Operator,
    - Comparison/Relational Operator,
    - Logical Operator,
    - Bitwise Operator,
    - Assignment Operator,
    - Identity operator,
    - Membership Operator,
    - Operator precedence,
    - Basic Hello World Program,
    - Variables,
    - Introduction to Data Types
    - Concept of Immutability Concept,
2. **Introduction to Strings:**

- Introduction to strings,
- Reading Dynamic inputs from the keyboard,
- Eval function in python,
- Multiline Strings,
- Python string access
- Introduction to Python string methods

3. **Python Decision Making and Flow Control:**
   - If statement,
   - If-else statement,
   - If-elif-else statement,
   - for loop,
   - while loop,
   - break,
   - continue,
   - pass,
   - in keyword,
   - Exception Handling,
   - try-except block,
   - try with multiple except blocks,
   - default except block,
   - finally except block,
   - try except else finally block
4. **Python Functions:**
   - Introduction to python functions,
   - User defined functions,
   - Function arguments,
   - Nested functions,
   - Local/Global/Non-local variables,
   - Lambda functions

1.2. Course Fees Package:

TARGET WITHOUT CERTIFICATION AND WITHOUT VIDEO

S No.	Content	Duration (hrs)	Price (Rs)
1	Core Python	20	2000
Early Bird Offer Discount (-10%)[1]			-200
Total			**Rs. 1800 only**

[1]Registration before July 27, 2024

TARGET WITH CERTIFICATION AND WITHOUT VIDEO

S No.	Content	Duration (hrs)	Price (Rs)
1	Core Python	20	2000
Early Bird Offer Discount (-10%)[2]			-200
Certificate			1000
Total			**Rs. 2800 only**

TARGET WITH CERTIFICATION AND WITH VIDEO

S No.	Content	Duration (hrs)	Price (Rs)
1	Core Python	20	2000
Early Bird Offer Discount (-10%)[3]			-200
Videos (In Pen Drive)[4]			1300
Certificate			1000
Total			**Rs. 4100 only**

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Note:

The above topics will be completed in 15 days from the start of the course with no refund of amount once the payment is done. Extra classes will be taken on Sundays. The certificate if aspirants wants to take is optional and is having a minimal fee of Rs 1000 only. The video lectures will be provided to the aspirants in Pen Drive those who opts it with a minimal fee of Rs1300 only. It is not a recorded video of the lecture but pre-recorded videos of the topics which will be covered. The mode of taking the course will be online. Early bird offer is applied only to the course package exclusive of certificate and video lectures. The online course time will be either in morning 6 to 7 am daily or in the evening 7 to 8 pm daily. Codes will be provided to all the aspirants. Minimum of 15 students in a batch.

[2]Registration before July 27, 2024
[3]Registration before July 27, 2024
[4]Not class lectures But already pre-recorded of topics

2. Complete Basics of Core Python (Iconic Package)

2.1. Course Contents:

1. **Introduction to Python Language:**
    - Introduction in Detail with History
    - Keywords
    - Identifiers,
    - Implicit and Explicit Joining method,
    - Print statement,
    - Escape Sequences,
    - Importance of Comments,
    - Indentation,
    - Raw Strings and Emojis
    - Arithmetic Operator,
    - Comparison/Relational Operator,
    - Logical Operator,
    - Bitwise Operator,
    - Assignment Operator,
    - Identity operator,
    - Membership Operator,
    - Operator precedence,
    - Basic Hello World Program,
    - Variables,
    - Mnemonic variables concept,
    - Data Types in Detail
    - Concept of Immutability Concept,
    - Namespace
2. **Introduction to Strings:**
    - Introduction to strings,
    - Reading Dynamic inputs from the keyboard,
    - Eval function in python,
    - Multiline Strings,
    - Python string access
    - Python string methods:

- Capitalize, casefold, center, count, encode, endswith, expandtabs, find, format, format_map, index, isalnum, isalpha, isdecimal, isdigit, isidentifier, islower, isnumeric, isprintable, isspace, istitle, isupper, join, ljust, lower, lstrip, maketrans, partition, replace, rfind, rindex, rjust, rpartition, rsplit, rstrip, split, splitlines, startswith, strip, swapcase, title, translate, upper, zfill

3. **Python Decision Making and Flow Control:**
   - If statement,
   - If-else statement,
   - If-elif-else statement,
   - for loop,
   - while loop,
   - break,
   - continue,
   - pass,
   - in keyword,
   - loop patterns
   - Debugging in python,
   - Exception Handling,
   - try-except block,
   - Control flow in try-except block
   - try with multiple except blocks,
   - default except block,
   - finally except block,
   - Nested try except finally block,
   - Control flow in try-except-finally block
   - try except else finally block
   - Control flow in try-except-else-finally block
4. **Python Functions:**
   - Introduction to python functions,
   - All Pre-defined functions:
     abs, all, any, asci, bin, bool, bytearray, bytes, callable, chr, classmethod, compile, complex, delattr, dict, dir, divmod, enumerate, eval, exec, filter, float, format, frozenset, getattr, hasattr, hash, help, hex, id, input, int, isinstance, issubclass, iter, len, list, map, max, memoryview, min, next, object, oct, open, ord, pow, print, property, range, repr, reversed, round, set, setattr, slice, sorted, str, sum, super, tuple, type, vars, zip
   - User defined functions,
   - Function arguments,
   - Nested functions,

- Keyword arguments
- Variable Length Arguments
- Position Arguments
- Default Arguments
- Python closures,
- Local/Global/Non-local variables,
- Lambda functions
- Lambda functions with map
- Lambda functions with filter
- Lambda functions with reduce
- Nested Lambda functions
- IIFE
- Functions with PADK,
- Iterator vs Iterable
- Currying function

2.2. Course Fees Package:

ICONIC WITHOUT CERTIFICATION AND WITHOUT VIDEO

S No.	Content	Duration (hrs)	Price (Rs)
1	Complete Basics of Core Python	40	3000
Early Bird Offer Discount (-10%)[5]			-300
Total			**Rs. 2700 only**

ICONIC WITH CERTIFICATION AND WITHOUT VIDEO

S No.	Content	Duration (hrs)	Price (Rs)
1	Complete Basics of Core Python	40	3000
Early Bird Offer Discount (-10%)[6]			-300
Certificate			1000
Total			**Rs. 3700 only**

ICONIC WITH CERTIFICATION AND WITH VIDEO

S No.	Content	Duration (hrs)	Price (Rs)
1	Complete Basics of Core Python	40	3000
Early Bird Offer Discount (-10%)[7]			-300
Videos (In Pen Drive)			1600
Certificate			1000
Total			**Rs. 5300 only**

[5]Registration before July 27, 2024
[6]Registration before July 27, 2024
[7]Registration before July 27, 2024

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Note:
The above topics will be completed in 30 days from the start of the course with no refund of amount once the payment is done. Extra classes will be taken on Sundays. The certificate if aspirants wants to take is optional and is having a minimal fee of Rs. 1000 only. The video lectures will be provided to the aspirants in Pen Drive those who opts it with a minimal fee of Rs. 1600 only. It is not a recorded video of the lecture but pre-recorded videos of the topics which will be covered. The mode of taking the course will be online. Early bird offer is applied only to the course package exclusive of certificate and video lectures. The online course time will be evening 6 to 7 pm daily. Codes will be provided to all the aspirants. Minimum of 15 students in a batch.

3. Complete Python (Plus Package)

3.1. Course Contents:

1. **Introduction to Python Language:**
    - Introduction in Detail with History
    - Keywords
    - Identifiers,
    - Implicit and Explicit Joining method,
    - Print statement,
    - Escape Sequences,
    - Importance of Comments,
    - Indentation,
    - Raw Strings and Emojis
    - Arithmetic Operator,
    - Comparison/Relational Operator,
    - Logical Operator,

- Bitwise Operator,
- Assignment Operator,
- Identity operator,
- Membership Operator,
- Operator precedence,
- Basic Hello World Program,
- Variables,
- Mnemonic variables concept,
- Data Types in Detail
- Concept of Immutability Concept,
- Namespace

2. **Introduction to Strings:**
   - Introduction to strings,
   - Reading Dynamic inputs from the keyboard,
   - Eval function in python,
   - Multiline Strings,
   - Python string access
   - Python string methods:
     Capitalize, casefold, center, count, encode, endswith, expandtabs, find, format, format_map, index, isalnum, isalpha, isdecimal, isdigit, isidentifier, islower, isnumeric, isprintable, isspace, istitle, isupper, join, ljust, lower, lstrip, maketrans, partition, replace, rfind, rindex, rjust, rpartition, rsplit, rstrip, split, splitlines, startswith, strip, swapcase, title, translate, upper, zfill

3. **Python Decision Making and Flow Control:**
   - If statement,
   - If-else statement,
   - If-elif-else statement,
   - for loop,
   - while loop,
   - break,
   - continue,
   - pass,
   - in keyword,
   - loop patterns
   - Debugging in python,
   - Exception Handling,
   - try-except block,

- Control flow in try-except block
- try with multiple except blocks,
- default except block,
- finally except block,
- Nested try except finally block,
- Control flow in try-except-finally block
- try except else finally block
- Control flow in try-except-else-finally block

4. **Python Functions:**
    - Introduction to python functions,
    - All Pre-defined functions:
      abs, all, any, asci, bin, bool, bytearray, bytes, callable, chr, classmethod, compile, complex, delattr, dict, dir, divmod, enumerate, eval, exec, filter, float, format, frozenset, getattr, hasattr, hash, help, hex, id, input, int, isinstance, issubclass, iter, len, list, map, max, memoryview, min, next, object, oct, open, ord, pow, print, property, range, repr, reversed, round, set, setattr, slice, sorted, str, sum, super, tuple, type, vars, zip
    - User defined functions,
    - Function arguments,
    - Nested functions,
    - Functions passing as arguments
    - Keyword arguments
    - Variable Length Arguments
    - Position Arguments
    - Default Arguments
    - Python closures,
    - Local/Global/Non-local variables,
    - Lambda functions
    - Lambda functions with map
    - Lambda functions with filter
    - Lambda functions with reduce
    - Nested Lambda functions
    - IIFE
    - Functions with PADK,
    - Iterator vs Iterable
    - Currying function
5. **Modules and Packages:**
    - Introduction to modules

- Module examples
- dir function importance
- math functions discussion:
  ceil, floor, fabs, fact, copysign, gcd, exp, log, sqrt, sin, cos, tan, hypot, degrees, rand, uniform, randrange
- itertools and various itertool functions
- logging
- assert
- sys module
- package creation

6. **Python Regular Expressions:**
   - Introduction to regex
   - Metacharacters
   - Compile
   - Finditer
   - Character classes
   - Quantifiers
   - Fullmatch
   - Search
   - Findall
   - Sub
   - Escape
   - Rprefix
   - split
7. **Python Data Structures:**
   - Introduction to data structures
   - Array
   - List
   - Tuple
   - Set
   - Dictionary
   - Generators
   - collection
8. **Python File Handling:**
   - File Handling with read and write method
   - File handling methods

- Pickling and unpickling
- Zip operation
- Date and Time module

9. **Python OOPs concepts:**
    - Objects
    - Class
    - Self variable
    - Constructor
    - Decorators
    - Object level variables
    - Static variables
    - Class method
    - Static method
    - Destructor
    - Composition
    - Inheritance
    - MRO
    - Super concept
    - Duck typing
    - Overloading
    - Overriding
    - Encapsulation
    - Abstract class
    - interface
10. **Python Multithreading:**
    - Multitasking concept
    - Thread creation
    - Single Tasking using a thread
    - Some useful thread attributes
    - Daemon and non-daemon threads
    - Multitasking using multiple thread
    - Thread race condition
    - Thread synchronization
    - Inter-Thread communication
    - Some useful tips- Dos and Donts

3.2. Course Fees Package:

PLUS WITHOUT CERTIFICATION AND WITHOUT VIDEO

S No.	Content	Duration (hrs)	Price (Rs)
1	Complete Python	90	5000
Early Bird Offer Discount (-10%)[8]			-500
Total			**Rs. 4500 only**

PLUS WITH CERTIFICATION AND WITHOUT VIDEO

S No.	Content	Duration (hrs)	Price (Rs)
1	Complete Python	90	5000
Early Bird Offer Discount (-10%)[9]			-500
Certificate			1000
Total			**Rs. 5500 only**

PLUS WITH CERTIFICATION AND WITH VIDEO

S No.	Content	Duration (hrs)	Price (Rs)
1	Complete Python	90	5000
Early Bird Offer Discount (-10%)[10]			-500
Videos (In Pen Drive)			2500
Certificate			1000
Total			**Rs. 8000 only**

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[8]Registration before July 27, 2024
[9]Registration before July 27, 2024
[10]Registration before July 27, 2024

Note:
The above topics will be completed in 60 days from the start of the course with no refund of amount once the payment is done. Extra classes will be taken on Sundays. The certificate if aspirants wants to take is optional and is having a minimal fee of Rs. 1000 only. The video lectures will be provided to the aspirants in Pen Drive those who opts it with a minimal fee of Rs. 2500 only. It is not a recorded video of the lecture but pre-recorded videos of the topics which will be covered. The mode of taking the course will be online. Early bird offer is applied only to the course package exclusive of certificate and video lectures. The online course time will be evening from 7 to 8 pm daily. Codes will be provided to all the aspirants. Minimum of 20 students in a batch.

4. Python tkinter (Lakshya Package)

4.1. Course Contents:

1. Introduction to tkinter GUI
2. Attributes of tkinter GUI
3. tkinter GUI Geometry Manager
4. Inbuilt various classes for python tkinter GUI widgets
5. GUI creation using classes and objects
6. tkinter label widget
7. tkinter Entry widget,
8. tkinter Button widget,
9. tkinter Check button widget,
10. tkinter Radiobutton widget,
11. tkinter scrollbar widget,
12. tkinter Frame widget,
13. tkinter LabelFrame widget,
14. tkinter Menu widget,
15. tkinter Menubutton widget,
16. tkinter Tabbed widget,
17. tkinter ListBox widget,
18. tkinter SpinBox widget,
19. tkinter PanedWindow widget,

20. tkinter Toplevel widget,
21. tkinter Scale widget,
22. tkinter OptionMenu widget,
23. tkinter Text widget,
24. tkinter Canvas widget,
25. tkinter Combobox widget,
26. tkinter Message widget,
27. Handling File Selection
28. Trace in tkinter
29. Case Study

4.2. Course Fees Package:

LAKSHYA WITHOUT CERTIFICATION

S No.	Content	Duration (hrs)	Price (Rs)
1	Python tkinter	40	4000
Early Bird Offer Discount (-10%)[11]			-400
Total			**Rs. 3600 only**

LAKSHYA WITH CERTIFICATION

S No.	Content	Duration (hrs)	Price (Rs)
1	Python tkinter	40	4000
Early Bird Offer Discount (-10%)[12]			-400
Certificate			1000
Total			**Rs. 4600 only**

For Registration: Click Here

For Registration: Scan Me

[11] Registration before July 27, 2024
[12] Registration before July 27, 2024

Note:
The above topics will be completed in 30 days from the start of the course with no refund of amount once the payment is done. Extra classes will be taken on Sundays. The certificate if aspirants wants to take is optional and is having a minimal fee of Rs. 1000 only. It is not a recorded video of the lecture but pre-recorded videos of the topics which will be covered. The mode of taking the course will be online. Early bird offer is applied only to the course package exclusive of certificate and video lectures. The online course time will be decided based on the audience. Codes will be provided to all the aspirants. Minimum of 15 students in a batch.

5. Python PyQt5 with Qt Designer (Pratigya Package)

5.1. Course Contents:

1. Introduction to Python PyQt5 and Qt Designer Tool

2. Getting Insights of Layout Management
   Comparison of PyQt5 with tkinter library, PyQt5 framework installation, First GUI form creation using PyQt5 without using class, First GUI form creation using PyQt5 by using class, Installation of Qt Designer with pre-defined templates, Components of Qt Designer, User credential app demo.

3. Widgets placement using absolute positioning, using layout classes: QBoxLayout, QGridLayout, QFormLayout

4. Getting Insights of Events, Signals and Slots
   Introduction, Usage of Toolbar icons, Signal Slot examples

5. Getting Insights of Button widgets in Qt Designer
   Learning about properties, methods and signals of Push Button, Tool Button, Radio Button, Checkbox and Command Link Button, Dialog Button Box Common properties for Button widgets

6. Getting Insights of Item views in Qt Designer
   Learning about properties, methods and signals of ListView, TreeView, TableView, ColumnView, QFrame, QAbstractScrollArea, QAbstractItemView,

7. Getting Insights of Item Widgets in Qt Designer
   Learning about properties, methods and signals of List Widget, Tree Widget and Table Widget

8. Getting Insights of Containers in Qt Designer
   Learning about properties, methods and signals of Group Box, ScrollArea, Toolbox, Tab Widget, Stacked Widget, Frame, Widget, MDI Area, Dock Widget

9. Getting Insights of Input widgets in Qt Designer
   Learning about properties, methods and signals of Combo Box, Font Combo Box, Line Edit, Text Edit, Plain Text Edit, Spin Box, Double Spin Box, Date/Time Edit, Dial, QScrollbar, QSlider, Key Sequence Edit

10. Getting Insights of Display widgets in Qt Designer
    Learning about properties, methods and signals of Label, Text browser, Calendar widget, LCD Number, Progress bar

11. Case Study

5.2. Course Fees Package:

PRATIGYA WITHOUT CERTIFICATION

S No.	Content	Duration (hrs)	Price (Rs)
1	Python PyQt5	40	4000
Early Bird Offer Discount (-10%)[13]			-400
Total			**Rs. 3600 only**

PRATIGYA WITH CERTIFICATION

S No.	Content	Duration (hrs)	Price (Rs)
1	Python PyQt5	40	4000
Early Bird Offer Discount (-10%)[14]			-400
Certificate			1000
Total			**Rs. 4600 only**

For Registration: Click Here

For Registration: Scan Me

[13]Registration before July 27, 2024
[14]Registration before July 27, 2024

Note:
The above topics will be completed in 30 days from the start of the course with no refund of amount once the payment is done. Extra classes will be taken on Sundays. The certificate if aspirants wants to take is optional and is having a minimal fee of Rs. 1000 only. It is not a recorded video of the lecture but pre-recorded videos of the topics which will be covered. The mode of taking the course will be online. Early bird offer is applied only to the course package exclusive of certificate and video lectures. The online course time will be decided based on the audience. Codes will be provided to all the aspirants. Minimum of 15 students in a batch.

6. Python Data Science (EXTREME Package)

6.1. Course Contents:

1. **Numpy in detail:**
   - Similarities between list and numpy array
   - Differences between list and numpy array
   - Numpy arrays creation
   - Using random module for ndarray creation
   - Exploring differences between View vs Copy in numpy
   - Elements access of ndarray
   - Iterate elements of ndarray
   - Arithmetic operators in numpy
   - Broadcasting concept in numpy
   - Array manipulation functions/variables in numpy
   - Multiple arrays joining into a single array
   - Splitting of arrays in numpy
   - Sorting of ndarray in numpy
   - Elements searching of ndarray in numpy
   - Elements insert into ndarray
   - Elements delete from ndarray in numpy
   - Usage of dot function for matrix multiplication
   - Usage of linalg module in numpy
2. **Scipy in detail:**
   - Difference between numpy and scipy.
   - Exploring scipy constants.
   - Optimizers in scipy
   - Sparse Data and Sparse Matrix in scipy
   - Graphs in scipy

- Spatial Data in scipy
- Integrate in scipy
- Interpolation in scipy

3. **Matplotlib in detail:**
   Line Plot , bar plot, scatter plot, pie plot, histogram, scatter plot and subplots

4. **Pandas in Detail:**
   - Pandas Series
     - Pandas Series constructor
     - Creating Pandas Series by passing a list
     - Creating Pandas Series by passing a dictionary
     - Creating Pandas Series by passing a numpy array
     - Exploring Pandas Series using copy parameter
     - Values access from Series using head and tail methods
     - Accessing elements in Pandas Series
     - Pandas Series slicing
     - Values Extraction using loc and iloc indexers
     - Masking using Booleans for Condition-based Selection
     - Pandas Series filtering
     - Callable object usage in selecting elements
     - Some useful attributes of Pandas Series object
     - Usage of apply method to Pandas Series
     - Aggregating of Pandas Series
     - Basic arithmetic operations for series object
     - Arithmetic operations with scalar value
     - Arithmetic operations between 2 series objects
     - Series object Transformation
     - Iterate elements of the series
   - Pandas DataFrame
     - Pandas DataFrame constructor
     - Pandas Methods and attributes applicable exclusively for DataFrame
     - Dropping of Dataframe rows with missing/null values
     - Arithmetic operators for DataFrames
     - New columns addition to DataFrames
     - Usage of fillna() method to the DataFrame
     - Sorting Values of the DataFrame
     - Sorting Values based on multiple columns of the DataFrame

  - Sorting dataFrame based on index
  - Ranking series of values by using rank() method
  - Filter data from DataFrame
  - Inclusion check in DataFrame
  - Usage of isnull and notnull method
  - Usage of duplicated method
  - Usage of drop_duplicates method in DataFrame
  - Usage of unique and nunique methods

5. **Polars in Detail:**
   - Difference between Pandas and Polars.
     - Polars Data Types
     - Numeric Group
     - Nested Group
     - Temporal Group
     - Others Group
   - Data Structures in polars
     - Series
     - DataFrame
   - Contexts in Polars
     - Basic operations, Select and filter concept
     - GroupBy concept
   - Importance of Expressions in Polars
   - Concept of Lazy API in Polars
   - Concept of Expressions in Polars
6. **Seaborn in detail:**
   - Some Basic Statistic Terms to know
   - Quantitative Variables
   - Qualitative Variables
   - Built in seaborn datasets
   - Plot Styling in seaborn
   - Concept of color palette in seaborn
   - Qualitative palettes
   - Sequential palettes
   - Diverging palettes
   - Heatmap plot in seaborn
   - Box plot in seaborn

- KDE plot in seaborn
- Violin plot in seaborn
- Line plot in seaborn
- Scatter plot in seaborn
- Joint plot in seaborn
- Facet Grid in seaborn

7. **Automated EDA Tools:**
   - PygWalker
   - Autoviz
   - Sweetviz
   - Dabl
   - Mito
   - Pandas visual analysis
8. **4 different Case Studies with code explanation line by line**

6.2. Course Fees Package:

EXTREME WITHOUT CERTIFICATION

S No.	Content	Duration (hrs)	Price (Rs)
1	Python for Data Science	80	5000
Early Bird Offer Discount (-10%)[15]			-500
Total			**Rs. 4500 only**

EXTREME WITH CERTIFICATION

S No.	Content	Duration (hrs)	Price (Rs)
1	Python for Data Science	80	5000
Early Bird Offer Discount (-10%)[16]			-400
Certificate			1000
Total			**Rs. 5500 only**

For Registration: Click Here

[15]Registration before July 27, 2024
[16]Registration before July 27, 2024

For Registration: Scan Me

Note:
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Part II.
Matlab

7. Matlab, Simulink and Graphical User Interface

7.1. Course Contents:

1. **Basics of Matlab:**

   - Introduction
   - Construction of Matlab
   - How to start and exit Matlab
   - Input and Output of Matlab
   - File types
   - Variables in Matlab
   - Use of Punctuation and Comments in Matlab
   - Order of Operation
   - Execution Process of Matlab Program
   - Basic Commands

- Errors and Debugging
- Matrices in Matlab
- Scalar Operations
- Saving Command Window
- Diary
- Save variables using Save and Load
- Script File/M-File
- Command Line Editing
- Publishing Reports
- Examples

2. **Vectors and Matrices:**
    - Matrices and Vectors
    - Indexing or Subscripting Matrices & Arrays
    - Deleting Rows or Columns
    - Concatenating Matrices
    - Useful Matrix Generators
    - Useful Matrix Manipulators
    - Utility of Matrix Size
    - Matrix Operators: Arithmetic operations, Relational operations, and Logical operations
    - Built-in Matrix Function
    - Matrix Inverse
    - Matrix Determinant
    - Specialized Matrices
    - Basic Data Analysis - Matrix and Vectors
    - Plotting Matrices and Vectors
    - Character Strings
    - Examples
3. **Graphics in Matlab:**
    - Basic 2-D Plot: Adding Labels on Plot, Adding Legend in Graph
    - Style Options for Plot
    - Adding Text using text and gtext
    - Multiple Plots
    - Controlling Axis in Graph
    - Clearing the Figure Window
    - Logarithmic Plots

- subplot
- Specialized 2-D Plots
- Polar Plot
- Compass Plot
- Rose Plot
- 2-D Bar Graphs, Pie Charts, and Histogram Plot
- 3-Dimensional Plots
- Specialized 3-D Plots
- 3-D Bar Graphs, Pie Charts, and Histogram Plot
- Line Plot
- View in 3-D
- Colormap in Matlab: Supported Colormap, Create Custom Colormap
- Colorbar
- Plot Editor
- Examples

4. **Built-in Function:**
    - Writing Script File
    - Introduction to Built-in Functions
    - Special Variables and Constants
    - Commands for Managing a Session
    - System and File Commands
    - Elementary Math Functions
    - Trigonometric Math Functions
    - Exponential Math Functions
    - Elementary complex math functions
    - Elementary rounding and remainder functions
    - Elementary discrete math functions
    - Input-Output, Escape and Formatting Commands
    - Built-in Functions for Arithmetic Operations
    - Vector, Matrix and Array Commands
    - Graphics Commands
    - M-file and Functional Commands
    - Program Flow Control
    - String Function Commands
    - Built-in Functions for Numerical Methods
    - Partial Fraction Expansion and Residue Command
    - Symbolic Math Functions

- Date and Timing Commands
- Examples

5. **Program Flow Control in Matlab:**
   - Loops and Conditional Statements
   - Selection Structures and Statements:
     If Statements, Nested If Statements, If-Else Statements, and If-Elseif-Else Statements
   - Switch Selection Structure
   - Loop Structure:
     For Loop Structure, and While Loop Structure
   - Loop Control Statements:
     Break Control Statement, and Continue Control Statement
   - Try - Catch Structure:
     Assert, and Return
6. **Functions in Matlab:**
   - User Defined Function
   - Local, Global and Persistent Variables
   - Nested Functions
   - Compiled P-code and Executable File
   - Building a Standalone Executable (.exe) file
   - Eval and Feval Functions
   - Inline Function
   - Anonymous Functions
7. **Simulink in Matlab:**
   - Simulink Designing
   - Starting up Simulink
   - Building Models
   - Basic Elements and Building Blocks of Simulink
   - Simulink with m-files
   - Subsystem
   - Linking of Simulink Model with Matlab (.m file)
8. **Graphical User Interface in Matlab:**
   - Introduction to GUI
   - GUI Components: Error Message, and Dialog Boxes
   - User Interface Menu
   - Callback Function of GUI
   - Accessing GUI data from the handles structure

- Handle Graphics
- Examples

9. **Data Objects and Applications of Matlab:**
   - Data Types in Matlab
   - Structures in Matlab
   - Applications of Matlab (5 applications with case studies)

7.2. Course Fees Package:

WITHOUT CERTIFICATION

S No.	Content	Duration (hrs)	Price (Rs)
1	Matlab Programming	30	5000
Early Bird Offer Discount (-10%)[17]			-500
Total			**Rs. 4500 only**

WITH CERTIFICATION

S No.	Content	Duration (hrs)	Price (Rs)
1	Matlab Programming	30	5000
Early Bird Offer Discount (-10%)[18]			-500
Certificate			1000
Total			**Rs. 5500 only**

For Registration: Click Here

For Registration: Scan Me

[17] Registration before July 27, 2024
[18] Registration before July 27, 2024

Note:
The above topics will be completed in 30 days from the start of the course with no refund of amount once the payment is done. Extra classes will be taken on Sundays. The certificate if aspirants wants to take is optional and is having a minimal fee of Rs. 1000 only. It is not a recorded video of the lecture but pre-recorded videos of the topics which will be covered. The mode of taking the course will be online. The online course time will be 9 pm to 10 pm. Codes will be provided to all the aspirants. Minimum of 20 students in a batch.

Part III.
LaTeX

8. Documentation using LaTeX

8.1. Course Contents:

1. Introduction to LaTeX, Comparisons with Microsoft Word, Software Installation - TeXnicCenter, MiKTex, PDF Reader (Sumatra).
2. Advantages and Limitations of LaTeX, Compilation, Document Class used in LaTeX
3. Numbering, Bulleting, and Writing Basic Mathematical Symbols
4. Writing Mathematical Equations, Mathematical Typesetting, Inserting Packages
5. Introduction to Float of LaTeX - Inserting Tables, Long Tables, and Figures
6. Introduction to Letter and Report class of LaTeX - Writing Letters, Multiple Letters, Applications and Thesis/Report
7. Resume/CV writing using LaTeX
8. Bibliography/References using database and bibitem, verbatim, and Journal Article (IEEE) editing using LaTeX

8.2. Course Fees Package:

WITHOUT CERTIFICATION

S No.	Content	Duration (hrs)	Price (Rs)
1	Documentation using LaTeX	14	1500

WITH CERTIFICATION

S No.	Content	Duration (hrs)	Price (Rs)
1	Documentation using LaTeX	14	2200

For Registration: Click Here

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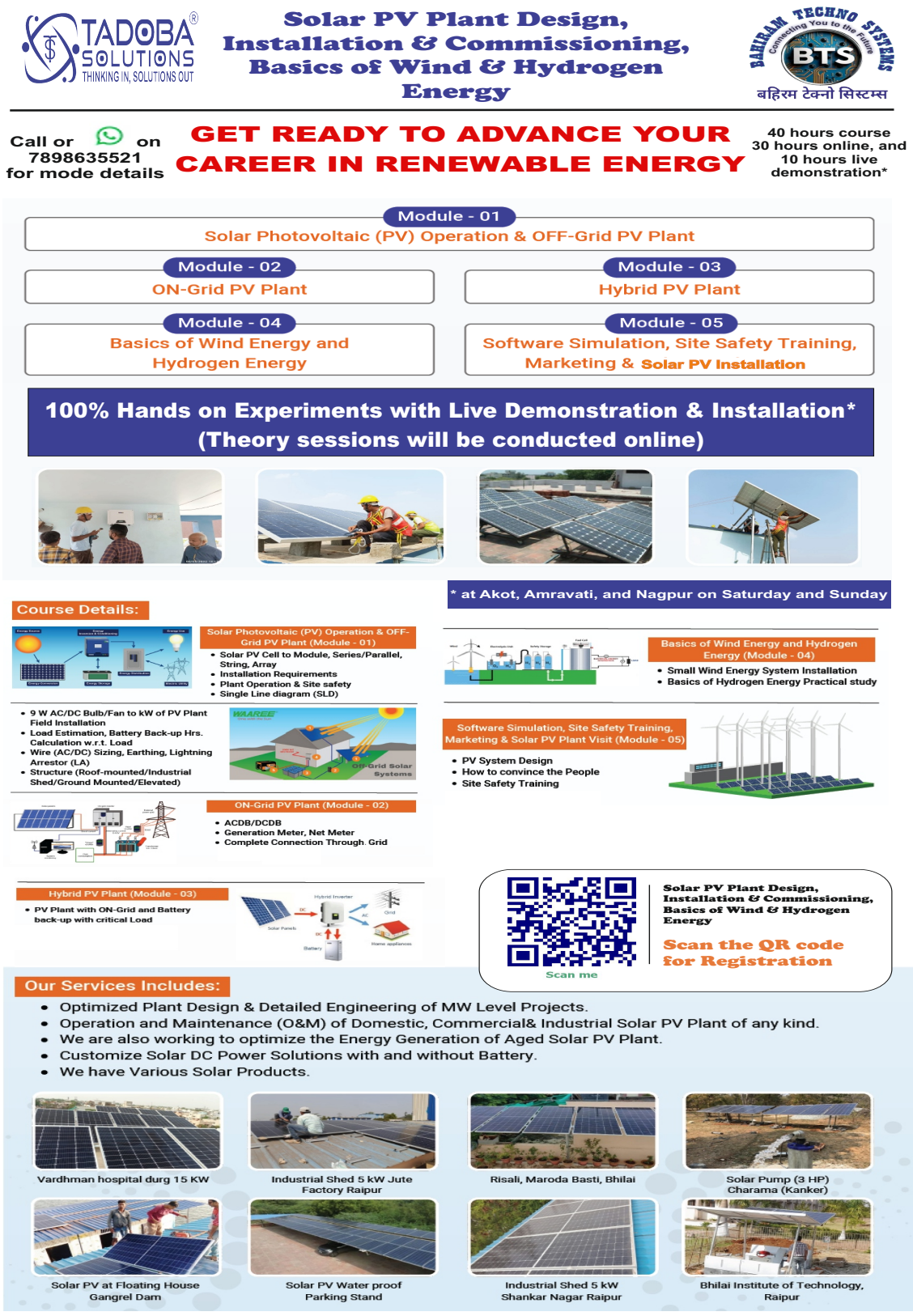
Part IV.
Solar Technologies

9. Solar Technologies

9.1. Course Contents:



WITH CERTIFICATION

S No.	Content	Duration (hrs)	Price (Rs)
1	Solar PV Operation and OFF-Grid PV Plant Training	40	3950

For Registration: Click Here

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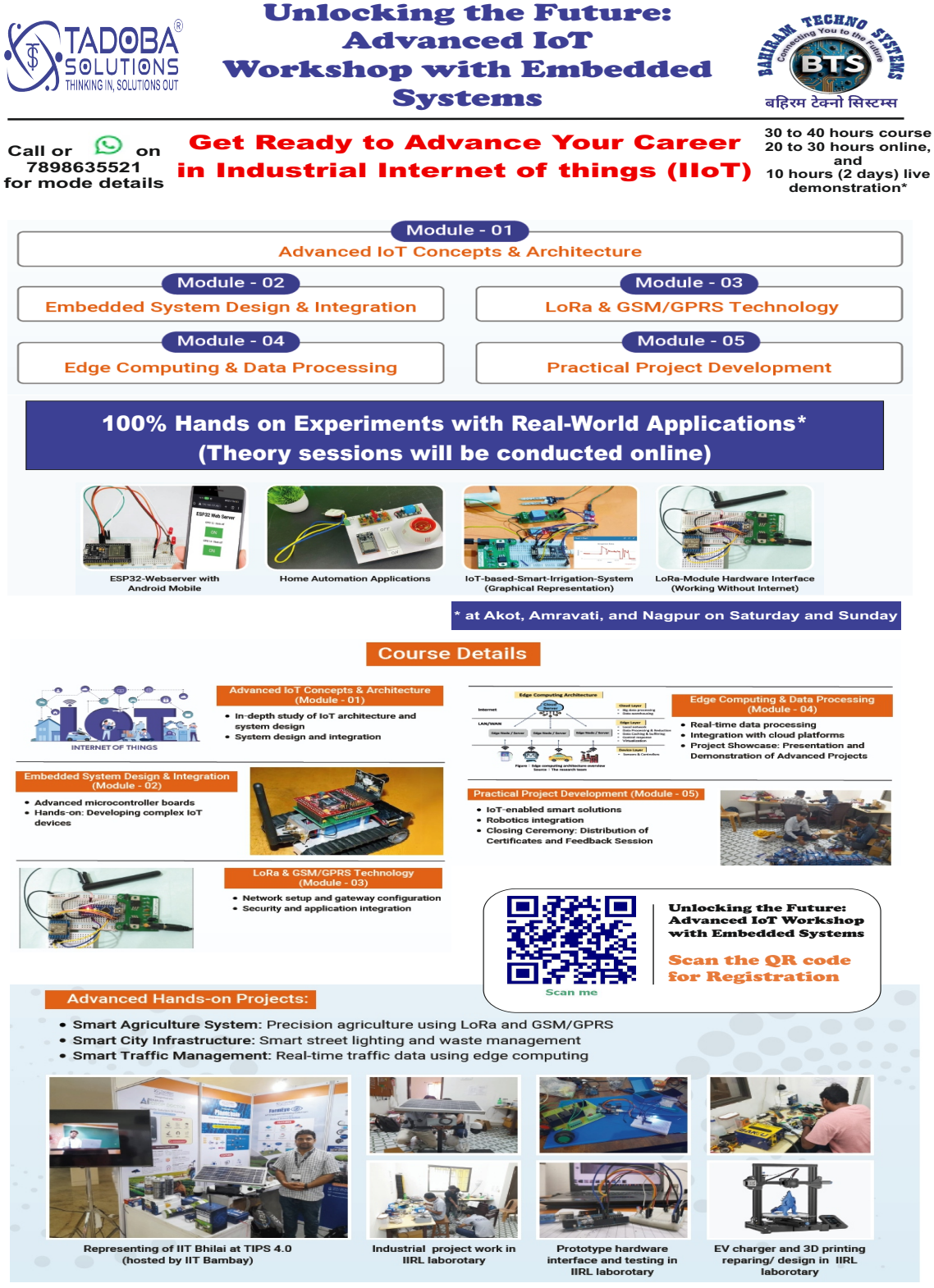
Part V.
Internet of Things

10. Internet of Things

10.1. Course Contents:



WITH CERTIFICATION

S No.	Content	Duration (hrs)	Price (Rs)
1	Unlocking the Future: Adv IoT Workshop with Embedded Systems	30 to 40	4950

For Registration: Click Here

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Director
Bahiram Techno Systems