



## ARUMUGAM PILLAI SEETHAI AMMAL COLLEGE

(Re-accredited with B<sup>+</sup> Grade by NAAC)

Tirupattur – 630 211.

### B.Voc., Software Development Programme

#### Programme Outcome (POs) :

- **PO1:** Improve their computer literacy, their basic understanding of operative systems and a working. Knowledge of software commonly used in academic and professional environments.
- **PO2:** Do Academic and Professional Presentations - Designing and delivering an effective presentation and developing the various IT skills to the electronic databases.
- **PO3:** Use the Systems Analysis Design paradigm to critically analyze a problem. Solve the problems (programming networking database and Web design) in the Information Technology environment. Function effectively on teams to accomplish a common goal and demonstrate professional behaviour.
- **PO4:** Develop IT-oriented security issues and protocols. Design and implement a web page.

#### Programme Specific Outcome (PPOs):

- **PSO1:** Understand analyse and develop computer programs in the areas related to web design, mobile application design.
- **PSO2:** Apply standard software engineering process and strategies in software project development using open source programming environment to deliver a quality product for business success.
- **PSO3:** Acquaintance with latest trends in software development and thereby innovate new ideas in the area of software development.
- **PSO4:** Conceptual grounding in computer usage as well as its practical business applications.
- **PSO5:** To demonstrate advanced skills in the effective analysis design and realization of business system utilizing contemporary information technology.



## ARUMUGAM PILLAI SEETHAI AMMAL COLLEGE

(Re-accredited with B<sup>+</sup> Grade by NAAC)

Tiruppattur – 630 211.

### B.Voc., Software Development Programme

#### Course Description:

**Fundamentals of Programming and C – 9VSD1C1:** Learning process helps in deep understanding the concepts of C language. Developing programs using control statements, Arrays and Strings. Enabling effective usage of arrays, structures, functions and pointers.

#### Course Objectives

- To introduce C Programming concepts to develop the programming knowledge.
- To enhance their analyzing and problem-solving skills and use the same for writing programs in C.
- To guide the candidates to explore the fundamental building blocks in the programming language.

#### Course Outcome (COs)

- Learning process helps in deep understanding the concepts of C language.
- Developing programs using control statements, Arrays and Strings.
- Enabling effective usage of arrays, structures, functions and pointers.

#### Course Description:

##### C PROGRAMMING LAB – 9VSD1P1

- Course Objectives
- The primary goal is to develop the fundamental programming skills in C and fundamental concept of flow chart and algorithm.
- To get good knowledge of procedural language approach so that students can make software in the later stage of their course.
- This will help the students to frame the real world modeling of data and its associated functions
- This course also aims to an understanding of various concepts of C with the help of which one can create its own data types that can be used globally in different program files.

#### Course Outcome (COs)

- Knowledge and Understanding: On successful completion of this subject the students have the programming ability in C Language.
- Intellectual Cognitive/ Analytical Skills: Enhancing Logical Thinking and Reasoning Skills through Collaborative Learning in C Programming.
- Practical Skills: Students would be capable of developing various applications to solve deluge of real world problems. They can also learn to make system software as well as application software. These existing languages could become base for developing new languages which can inherent its features. On the backend of various embedded systems, these languages are deployed.
- Transferable Skills: In many multinational companies they can work effectively in agroupor team to achieve goals and can show initiative and leadership abilities.



## ARUMUGAM PILLAI SEETHAI AMMAL COLLEGE

(Re-accredited with B<sup>+</sup> Grade by NAAC)

Tirupattur – 630 211.

### B.Voc., Software Development Programme

#### C PROGRAMMING LAB – 9VSD1P1

##### Course Objectives:

- To introduce C Programming concepts to develop the programming knowledge.
- To enhance their analyzing and problem-solving skills and use the same for writing programs in C.
- To guide the candidates to explore the fundamental building blocks in the programming language.

##### Course Outcomes:

- Learning process helps in deep understanding the concepts of C language.
- Developing programs using control statements, Arrays and Strings.
- Enabling effective usage of arrays, structures, functions and pointers.
- Principles of Information and Communication Technology - 9VSD1A1
- Course Objectives:
- Making the students understand and learn the basics of computer how to operate it.
- To make familiar with the part and function of computer, its types , how to use computer in our day to day life.
- To know Its characteristics, its usage, Limitations and benefits etc.

#### Principles of Information and Communication Technology - 9VSD1A1

##### Course Objectives:

- Making the students understand and learn the basics of computer how to operate it.
- To make familiar with the part and function of computer, its types , how to use computer in our day to day life.
- To know Its characteristics, its usage, Limitations and benefits etc.

##### Course Outcomes

- After studying this course, students should be able to:
- Understand the fundamental hardware components that make up a computer's hardware and the role of each of these components
- Understand the difference between an operating system and an application program, and what each is used for in a computer
- Describe some examples of computers and state the effect that the use of computer technology has had on some common products
- Use systems development, word-processing, spreadsheet, and presentation software to solve basic information systems problems.
- Analyze compression techniques and file formats to determine effective ways of securing, managing, and transferring data.



## ARUMUGAM PILLAI SEETHAI AMMAL COLLEGE

(Re-accredited with B<sup>+</sup> Grade by NAAC)

Tirupattur – 630 211.

### B.Voc., Software Development Programme

#### OFFICE AUTOMATION LAB – 9VSD1P2

##### Course Objectives:

- Making the students understand and learn Microsoft Office Package.
- To make familiar with Microsoft Word, Microsoft Excel, Microsoft Powerpoint and Microsoft Access.
- To know its characteristics, its usage, limitations and benefits etc.

##### Course Outcomes

After studying this course, students should be able to:

- Students will gain the Knowledge about Word Processing: Introduction of office Automation
- Students will surge their Knowledge about Presentation using PowerPoint.
- Understand the fundamental tools of Microsoft Excel components that make up and the role of each of these components.
- Understand the fundamental tools of Microsoft Access components that make up and the role of each of these components.

#### Web Technology 9VSD2C1

##### Course Objectives:

- Understand the principles of web environment
- Become familiar with principles that relate to web design and learn how to implement
- these theories into practice.
- Develop skills in designing static and dynamic web pages .
- Learn the language of the web: HTML, CSS and JAVASCRIPT.
- Publish your website to the web

##### Course Outcome:

- After successful completion of the course students will be able to
- Use knowledge of HTML, CSS and JAVASCRIPT code and an HTML editor to create websites
- Use critical thinking skills to design and create websites.
- Create online forms
- Publish website to the web

##### Course Objectives:

- To implement the concepts in visual design and content structuring.
- To understand the concept of JAVASCRIPT to develop their web development skill.
- To facilitate students to create a website using HTML and JAVASCRIPT. Become familiar with principles that relate to web design and learn how to implement these theories into practice.

##### Course Outcome

- After successful completion of the course students will be able to Understanding how to use HTML tags in Programs.
- Applying CSS styles in web page development.
- Understanding the concept of JavaScript to develop a dynamic web page. Developing web pages using HTML tags.



## ARUMUGAM PILLAI SEETHAI AMMAL COLLEGE

(Re-accredited with B<sup>+</sup> Grade by NAAC)

Tirupattur – 630 211.

### B.Voc., Software Development Programme

#### DTP and Multimedia – 9VSD2P2

##### Course Objectives:

The primary objective of this course is

- To understand the fundamentals & concepts of Adobe Photoshop
- To give the students a hands on experience on Adobe Photoshop
- Recognize, locate, and navigate through all aspects of the new CS4 user interface
- Create, manipulate, and edit text and graphics to obtain desired graphical outcomes.
- Understand, create, and edit symbols, filters and instances in 3D spaces.
- Design, create, edit, and manipulate animation using several animation tools and techniques.
- Utilize tweens and articulated motions with inverse kinematics to morph shapes.
- Design, create, and edit a flashNbased navigation menus and interactive movies.
- Utilize and understand sound and sound formats in flash movies.
- Explain and utilize components to create interactivity.
- Load, control, and remove movie clips and masks in movie content.
- Publish flash movies in numerous formats and contexts in a professional and webNfriendly manner.

##### Course Outcomes:

- To impart the knowledge in order to create animations
- To give students the skills to work with multiple layers
- Utilize several Flash tools and tactics learned throughout the course to produce an interactive flashNbased website.
- Demonstrate the ability to effectively utilize the timeline and motion tween affects to produce animation.

#### Optimization Techniques 9VSD2A1

##### Course Objectives:

The primary objective of this course is

- Enumerate the fundamental knowledge of Linear Programming and Dynamic Programming problems.
- Learn classical optimization techniques and numerical methods of optimization.
- Know the basics of different evolutionary algorithms.
- Explain Integer programming techniques and apply different optimization techniques to solve various models arising from engineering areas.

##### Course outcomes:

- Understand importance of optimization of industrial process management
- Apply basic concepts of mathematics to formulate an optimization problem
- Analyze and appreciate variety of performance measures for various optimization problems



## ARUMUGAM PILLAI SEETHAI AMMAL COLLEGE

(Re-accredited with B<sup>+</sup> Grade by NAAC)

Tirupattur – 630 211.

### B.Voc., Software Development Programme

#### 9VSD3G1- Advanced Communicative English

##### Course Objectives:

This Lab focuses on using multi-media instruction for language development to meet the following targets:

- To improve students' fluency in spoken English
- To enable them to listen to English spoken at normal conversational speed
- To help students develop their vocabulary
- To read and comprehend texts in different contexts
- To communicate their ideas relevantly and coherently in writing
- To make students industry-ready
- To help students acquire behavioral skills for their personal and professional life
- To respond appropriately in different socio-cultural and professional contexts

##### Course Outcomes:

Students will be able to: Acquire vocabulary and use it contextually

- Listen and speak effectively
- Develop proficiency in academic reading and writing
- Increase possibilities of job prospects
- Communicate confidently in formal and informal contexts

#### Data Structures and Algorithms lab – 9VSD3P1

##### Course Objective:

- To impart the basic concepts of data structures and algorithms
- To teach efficient storage mechanisms of data for an easy access.
- To design and implementation of various basic and advanced data structures.
- To introduce various techniques for representation of the data in the real world.
- To improve the logical ability

##### Learning Outcomes:

- Define basic static and dynamic data structures and relevant standard algorithms for them: stack, queue, dynamically linked lists, trees, graphs, heap, priority queue, hash tables, sorting algorithms.
- Demonstrate advantages and disadvantages of specific algorithms and data structures,
- Select basic data structures and algorithms for autonomous realization of simple programs or program parts
- Determine and demonstrate bugs in program, recognize needed basic operations with data structures
- Formulate new solutions for programming problems or improve existing code using learned algorithms and data structures,
- Evaluate algorithms and data structures in terms of time and memory complexity of basic operations.





## ARUMUGAM PILLAI SEETHAI AMMAL COLLEGE

(Re-accredited with B<sup>+</sup> Grade by NAAC)

Tirupattur – 630 211.

### B.Voc., Software Development Programme

#### Programming with C++ Lab – 9VSD3P2

##### Course Objectives

- To take review or tour of Programming in C and make aware of limitation of C, thereby need of the origin of C++.
- To impart knowledge in such a way that students should be able to use of concept of Object Oriented Programming Approach in their programming skills.
- To imbibe with the knowledge of implementation of various features of C++ i.e. concept of Object, Object communication, Encapsulation, Data hiding, overloading, inheritance, polymorphism etc.
- To raise programming level of students in C++ to be able to apply in the real life.

##### Program Learning Outcomes:

Students will be

- Able to know how to do programming in C++ environment.
- Able to understand and implement the concepts of object oriented approach using C++.
- Able to acquire in depth knowledge and develop software in C++

Intellectual(Cognitive/ Analytical) Skills:

- Students will be able to
- identify different class attributes, member functions, base class and derived class and their relationships among them
- learn how to reuse the code using polymorphism

Practical Skills

- Students will be able to learn:
- to solve a real life existing problems using the features of C++
- to develop software/ big and complex programs for a complex problems
- implement advance features of object oriented approach in other various language(s).

Transferable Skills :

- Students will be able to
- use C++ more effectively,
- learn to think more analogously, creatively as well as comparatively
- Develop better software development skills in other language too.

#### Linux and Open Office Lab – 9VSD3A1

##### Course Objective

- Discuss the history and development of the Linux Operating System.
- Work within a command line environment
- Describe and apply various command line utilities
- Work with the file System

##### Learning Outcomes:

- Log in, from a terminal, a virtual terminal and remotely.
- Log out.
- Work with the shell and learn shell features such as command line editing.
- Access the various help systems.
- Describe and apply various file related commands
- List the names of files



## ARUMUGAM PILLAI SEETHAI AMMAL COLLEGE

(Re-accredited with B<sup>+</sup> Grade by NAAC)

Tiruppattur – 630 211.

### B.Voc., Software Development Programme

#### Computer Networks Administration – 9VSD4C1

Course Objectives:

- To deal with basic ideas of networking domain.
- To present the principles of Cryptography in Computer Networks.
- To know the classical, advanced encryption standards and techniques, message authentication codes, digital signatures, email.

Course Outcomes:

Students will be able to:

- Understanding cryptography and network security concepts and application.
- Applying security principle in system design.
- Detecting network security threats.
- Understanding the various cryptographic algorithms.

#### RDBMS LAB – 9VSD4P1

Course Objectives:

- To understand the use of Structured Query Language (SQL) and its syntax.
- To understand and apply the principles of data modeling using Entity Relationship and develop a good database design.
- To study the concepts and techniques relating query processing using SQL engines.

Course Outcomes:

Students will be able to:

- Designing the basic concepts of Database.
- Implementing data Integrity constraints in Database.
- Validating the various fundamental tasks to perform data Modeling.
- Implementing functions, packages, stored procedures and user defined exception.

#### COURSE NAME: Visual Basic LAB – 9VSD4A1

Course Objectives:

- To gain the practical aspects for developing Graphical User Interface.
- To provide a consistent object-oriented programming environment.
- To provide application development using .Net framework.

Course Outcomes:

Students will be able to:

- Learning the concepts of Visual Basic and .Net
- Summarizing the advantages of Controls in VB
- Demonstrating the concepts of .NET Framework
- Designing and developing the distributed data driven applications





## ARUMUGAM PILLAI SEETHAI AMMAL COLLEGE

(Re-accredited with B<sup>+</sup> Grade by NAAC)

Tirupattur – 630 211.

### **B.Voc., Software Development Programme**

#### **XML LAB -9VSD4P2**

##### **Course Objectives:**

- You will learn the basics of creating XML documents, transforming XML documents, and validating XML documents.
- More specifically, you will learn the basics and history of XML and how to write your own XML documents.
- You will learn how to transform XML documents into documents of other types using XSLT.
- You will learn how to write valid XML documents based on a DTD.

##### **Course Outcomes:**

Students will be able to:

- Writing XML - Demonstrate the ability to write well-formed XML.
- Transforming XML - Demonstrate the ability to use XSLT to transform XML documents into different formats.
- Validating XML - Demonstrate the ability to write valid XML that conforms to an existing DTD.