

**SRI RAMAKRISHNA MISSION VIDYALAYA COLLEGE OF ARTS AND SCIENCE
(AUTONOMOUS), COIMBATORE - 641 020**

Name of the Programme: B.Sc Physics

Month & Year of Revision: 2018-19

S.No.	Course Title	Course Code	% of Revision
1	Group Project	18UPH6CPR	100
2	Models based on concepts of Physics	14UPH5CP5	100

Note:

No.of Courses offered by the Department (A) 26

No.of Courses revised in BoS (20% Revision) (B) 2

Formula for Syllabus revision: $(B/A)*100$ 7.69

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Name of the Programme: M.Sc Physics

Month & Year of Revision: May 2018

S.No.	Course Title	Course Code	% of Revision
1	PG - Programming in C++ and MATLAB	18PPH1EL1	56
2	Advanced materials and characterization	18PPH3EL2	100
3	Project	14PPH4PRW	100

Note:

No. of Courses offered by the Department (A) 24

No. of Courses revised in BoS (20% Revision) (B) 3

Formula for Syllabus revision: $(B/A)*100$ 12.5

Details of Syllabus revision for the academic year 2018-19

Department: **Physics**

Name of the Course: **PG - Programming in C++ and MATLAB (18PPH1EL1)**

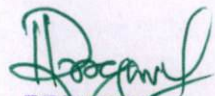
Unit	Existing Content	Revised Content	Mode of revision (Added/Replaced/Deleted)	% of revision
I	<p>BEGINNING WITH C ++ Software Crises - Basic Concepts of OOP - Object Oriented Languages - Applications of OOP - Structure of C++ Programme - Tokens, Expressions and Control structures - Basic data types - Symbolic Constants - Operators in C++ - Manipulators - Type Casting - Expressions and their Types - Control structures.</p> <p>Functions in C++: Function Prototyping - Call by reference - Return by Reference - Inline Functions - Default Arguments - Constant Arguments.</p>	<p>BEGINNING WITH C ++ Basic Concepts of OOP - Structure of C++ Programme - Tokens, Expressions and Control structures - Basic data types - Symbolic Constants - Operators in C++ - Manipulators - Type Casting - Expressions and their Types - Control structure: if, else, nested if, switch case, while, do while, for, nested for- break - continue and go to statement - Types Functions - Function Prototyping - Call by reference - Return by Reference - Inline</p>	Added	6

		Functions - Default Arguments.		
III	<p>POLYMORPHISM Operator Overloading - Function Overloading - Over Loading Unary and Binary Operators - This Pointer - Static and dynamic Binding - Virtual Functions. Inheritance: Single Inheritance - Multiple Inheritance - Hierarchical Inheritance - Multi Level Inheritance - Hybrid Inheritance.</p>	<p>POLYMORPHISM AND FILES Operator Overloading - Function Overloading - Single Inheritance - Multiple Inheritance - Hierarchical Inheritance - Multi Level Inheritance - Hybrid Inheritance. Classes for File Stream Operations - Opening and Closing a File - Text File Operations - Binary File Operations - Function Templates - Class Templates - Member Function Templates.</p>	Added	10
IV	<p>Classes for File Stream Operations - Opening and Closing a File - Text File Operations - Binary File Operations - Error Handling during File Operations. Templates: Function Templates - Class Templates - Member Function Templates. Exception Handling: Basics - Mechanism.</p>	<p>Basics of MATLAB MATLAB windows - On-line help - Input - Output - File types - Interactive Computation: Matrices and vectors - Input - Indexing - Matrix manipulation - Creating vectors - Matrix array operations - Arithmetic operations - Relational operations - Logical operations - Elementary math function -</p>	Replaced	20

		Matrix function - Character strings - Manipulating character strings - Eval function - Array operations - Command line functions - Inline function - Anonymous function - Plotting simple graphs.		
V	SIMULATION IN PHYSICS Moment of inertia of Circular disc, Solid sphere, Spherical sphere and Solid cylinder - Temperature conversion from F to C and C to F - Determination of energy density :Plank's law of radiation - Resolving and dispersive powers of grating - Solar spectrum : Determination of photon energy - SCR power control : Determination of power output - AND, OR, NOT, NAND, NOR gates - Radius, orbital wavelength and energy levels of atoms: Bhor model - Lyman, Balmer, Paschen, Brackett and Pfund series : Wave number - Determination of the diameter of molecules - Molecular weight of compounds.	PROGRAMMING ON MATLAB Scripts and functions - Script files - Function files - Executing a function - Sub functions - Nested functions - Language specific features - Use on comments to create online help - Continuation - Global variables - Loops branches and control flow - Interactive input-Application: Linear algebra - Solving a linear system - Gaussian elimination - Eigen values and Eigen vectors - Matrix factorization	Replaced	20
			Total	56

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Bombasethi
Chairman
Board of Studies


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