SCRIPTING LANGUAGES

(ProfessionalElective-III)

B.Tech. III Year II Semester								
Course Code	**Category**	**Hours / Week**			**Credits**	**Maxumum Marks**		
CS3208PE	**Elective**	**L**	**T**	**P**	**C**	**CIA**	**SEE**	**Total**
		3	**0**	**0**	**3**	**25**	**75**	**100**
Contact classes: 60	**Tutorial Classes : NIL**	**Practical classes : NIL**				**Total Classes :60**		
Prerequisites: 1. **A course on "Computer Programming and Data Structures"** 2. **A course on "Object Oriented Programming Concepts"**								

Course Objectives:

- This course introduces the script programming paradigm
- Introduces scripting languages such as Perl, Ruby and TCL.
- Learning TCL

Course Outcomes:

- Understand Structure and execution of Scripting Languages.
- Identify and apply suitable programming paradigm for a given computing web application.
- Comprehend the differences between typical scripting languages and typical system and application programming languages.
- Gain knowledge of the strengths and weakness of Perl, TCL and Ruby; and select an appropriate language for solving a given problem.
- Acquire programming skills in scripting language

COURSE SYLLABUS

MODULE- I

Introduction: Ruby, Rails, The structure and Excution of Ruby Programs, Package Management with RUBYGEMS, Ruby and web: Writing CGI scripts, cookies, Choice of Webservers, SOAP and webservices

Ruby Tk – Simple Tk Application, widgets, Binding events, Canvas, scrolling

MODULE- II

Extending Ruby: Ruby Objectsin C, the Juke box extension, Memory allocation, Ruby Type System, Embedding Ruby to Other Languages, Embedding a Ruby Interperter

MODULE- III

Introduction to PERL and Scripting

Scripts and Programs, Origin of Scripting, Scripting Today, Characteristics of Scripting Languages, Uses for Scripting Languages, Web Scripting, and the universe of Scripting Languages. PERL-Names and Values, Variables, Scalar Expressions, Control Structures, arrays, list, hashes, strings, pattern and regular expressions, subroutines.

MODULE- IV

Advanced perl Finer points of looping, pack and unpack, filesystem, eval, datastructures, packages, modules, objects , interfacing to the operating system, Creating Internet ware applications, Dirty Hands Internet Programming, security Issues.

MODULE- V

TCL Structure, syntax, Variables and Data in TCL, Control Flow, Data Structures, input/output, procedures, strings, patterns, files, Advance TCL- eval, source, exec and up level commands, Namespaces, trapping errors, event driven programs, making applications internet aware, Nuts and Bolts Internet Programming, Security Issues, C Interface.

Tk : Tk-Visual ToolKits , Fundamental Concepts of Tk, Tk by example, Eventsand Binding , Perl-Tk.

TEXT BOOKS:

1. The World of Scripting Languages, David Barron,Wiley Publications.
2. Ruby Progamming language by David Flanaganand Yukihiro Matsumoto O'Reilly
3. "Programming Ruby "The Pramatic Progammers guideb y Dabve Thomas Second edition

REFERENCE BOOKS:

1. Open Source Web Development with LAMP using Linux Apache, MySQL, Perl and PHP, J.Lee and B.Ware (AddisonWesley) Pearson Education.
2. Perl by Example, E.Quigley, Pearson Education.
3. Programming Perl, Larry Wall,T.Christiansenand J.Orwant,

O'Reilly, SPD.
4. Tcland the Tk Toolkit, Ousterhout, Pearson Education.
5. Perl Power, J.P.Flynt, Cengage Learning.