STUDENT INFORMATION PLAN

Course Name : Numerical Methods

Course Code : ICT 201-2

Number of Credits : Two (02) Credits

Lecturer : Mr. J.K. Hasitha Sampath

COURSE OUTLINE

1. *Introduction, Bisection method, Newton-Raphson method, Fixed point iteration techniques*
2. *Gauss Elimination Method, Gauss Jordan Method, Jacobi Method*
3. *Forward difference, Backward difference, Central difference, 2 point formula, Trapezoidal rule, Simpson's rule*
4. *Lagrange interpolation, Newton polynomial*
5. *Euler's Method, Runge-Kutta Method*

RECOMMENDED TEXTS

- Atkinson, K, and Han, W, (2004), *Elementary Numerical Analysis*, 3rd edition, (John Wiley), ISBN: 0-471-45226-8
- Epperson, J, (2002), *An Introduction to Numerical Methods and Analysis*, (John Wiley), ISBN: 0-471-31647-4
- Sastry, S, (2012), *Introductory Methods of Numerical Analysis*, 5th edition, (PHI Learning), ISBN: 978-81-203-4592-8

GRADING

Take Home Assignments : 10%

Quiz : 10%

Mid Semester Examination : 20%

End Semester Examination : 60%