Nikhil Hegde Achyut Mani tripathi

### Autumn 2025 Course Overview



#### Description:

This course provides an introduction to problem solving with computers using 'C' as a programming language.

• Credit structure (L-T-P-C): 3-0-3-9

3 contact hours (three 50min lectures) per week. 6 credits.

3 lab hours (150 mins in total) per week. 3 credits.

Full-semester (14 week + 2 exam week) core course.

• Prerequisites: None

- Developer essentials
  - Editors, Integrated Development Environment (IDE), Unix Shell,
    Library-based development, Compiler toolchain
- Programming in C
  - Machine representation, data types and control flow, operators, arrays and strings, functions and recursion, pointers and structures, Input and output using files
- Applications: Sample problems in engineering, science, text processing, and numerical methods.

- References and Texts:
  - The C Programming Language, Brian W Kernighan, Dennis M Ritchie, Prentice Hall India, 2nd edition, 1988
  - Programming with C (Second Edition) Byron Gottfried, Schaum's Outlines Series, Tata-Mcgraw Hill, 2011
  - How to Solve It by Computer, by G. Dromey, Prentice- Hall, Inc., Upper Saddle River, NJ, 1982.
  - How to Solve \_It (2nd ed.), by Polya, G., Doubleday and co, 1957.
  - Let Us C, by Yashwant Kanetkar, Allied Publishers, 1998.