GURU NANAK INSTITUTE OF ENGINEERING & TECHNOLOGY

Dahegaon, Kalmeshwar Road, Nagpur-441 501

PG DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

MTECH (CSE)

Session 2017-18 (ODD/EVEN)

ODD SEMESTER

SEMESTER:I

High Performance Computer Architecture (PGCSE101T) **Year Of Study- 2017-2018**

CO1: Use various addressing modes and Instructions for solving engineering problems.

CO2: Use various addressing modes and Instructions for solving engineering problems.

CO3: Analyze the control unit organization and various hazards in pipelining.

CO4: Analyze the memory organization and IPC mechanisms.

CO5: Understand the concepts in file system and security.

Advance in Operating system Design (PGCSE102T) **Year Of Study- 2017-2018**

CO1: Understand the design approaches of advanced operating systems

CO2:Analyze the design issues of distributed operating systems.

CO3: Evaluate design issues of multi processor operating systems.

CO4: Identify the requirements of database operating systems.

CO5:Formulate the solutions to schedule the real time applications.

Data Science (PGCSE103T) **Year Of Study- 2017-2018**

CO1:To will demonstrate proficiency with statistical analysis of data.

CO2: Will develop the ability to build and assess data-based models.

CO3:Will execute statistical analyses with professional statistical software.

CO4:Will demonstrate skill in data management.

CO5:Will apply data science concepts and methods to solve problems in real-world contexts and will communicate these solutions effectively

Elective–I-AI & Expert System Design (PGCSE104T) Year Of Study- 2017-2018

CO1: Understand the theoretical base of the expert system and its development process.

CO2: Differentiate between different knowledge representation techniques and describe methods of knowledge acquisition and extraction.

CO3: Describe various learning and planning techniques for different types of expert systems such as neural, fuzzy and real expert system

CO4: Analyze the development process of expert system

CO5: Develop expert systems using various available tools.

Elective –II-Advance data Mining &Big data Analysis (PGCSE105T) Year Of Study- 2017-2018

CO1: Use data pre-processing techniques to build data warehouse

CO2: Analyze transaction databases for association rules.

CO3: Use classification methods and prediction techniques on transaction databases.

CO4: Understand various clustering techniques for categorizing data.

CO5: Understand methods for outlier analysis.

SEMESTER-III

Advance Database System (PGCSE301T) Year Of Study- 2017-2018

CO1: Understand Distributed Database Process, Architecture, and Design Principles.

CO2:Apply Distributed Query Optimization Techniques and Algorithms

CO3: Analyze and apply Concurrency Control and Reliability Techniques.

CO4:Characterize Parallel Databases and Distributed Object Databases

CO5: Acquire inquisitive attitude towards research topics in databases

Foundation Course-II-Project Planning & Management(PGCSE302T) Year Of Study- 2017-2018

CO1: Following this course, students will be able to describe a project life cycle, and can skill fully map each stage in the cycle

CO2: Students will identify the resources needed for each stage, including involved stakeholders, tools and supplementary materials

CO3: Students will describe the time needed to successfully complete a project, considering factors such as task dependencies and task lengths

CO4: Students will be able to provide internal stakeholders with information regarding project costs

by considering factors such as estimated cost, variances and profits

CO5: Students will be able to develop a project scope while considering factors such as customer requirements and internal/external goals

EVEN-SEMESTER

SEMESTER-II

Advance in Algorithm (PGCSE201T) Year Of Study- 2017-2018

CO1: Analyze algorithms performance using a prior analysis

CO2: Analyze and apply to solve the complex problems using advanced data structures (like arrays, stacks, queues, linked lists, graphs and trees.) asymptotic notation

CO3: Ability to solve the real life problem using different algorithm design techniques

CO4: Understand the NP hard and NP complete concepts.

CO5:Ability to implement using design techniques

Advance Computer Network Security (PGCSE202T) Year Of Study- 2017-2018

CO1: Understand fundamental principles of computer networking, and networking devices.

CO2: Analyze the design principles, protocols, addressing and algorithms in the link layer, network layer, transport layer, and application layer

CO3: Analyze principles and advanced networking protocols for different types of network architectures to solve complex engineering problems

Advance digital Image Processing (PGCSE203T) Year Of Study- 2017-2018

CO1: Understand the basic concepts and analytical methods of analysis of digital images.

CO2: Understand the fundamental concepts of Digital Image Processing and basic relations among pixels.

CO3: Differentiate Spatial and Frequency domain concepts for image

CO4: Apply restoration process of degraded image and Multi resolution processing.

CO5: Apply Image compression and Segmentation Techniques for image processing applications.

Elective –III-Advance in Multimedia (PGCSE204T) Year of Study- 2017-2018

CO1: Understand various file formats for audio, video and text media.

CO2: Develop various Multimedia Systems applicable in real time.

CO3: To evaluate multimedia application for its optimum performance

CO4: Design interactive multimedia software

CO5: Apply various networking protocols for multimedia applications.

Foundation Course-I-Research Methodology (PGCSE205T) Year Of Study- 2017-2018

CO1: Critically analyse research methodologies identified in existing literature.

CO2: Propose and distinguish appropriate research designs and methodologies to apply to a specific research project.

CO3: Develop a comprehensive research methodology for a research question.

CO4: Apply the understanding of feasibility and practicality of research methodology for a proposed project.

CO5: Apply the understanding of feasibility and practicality of research methodology for a proposed project.

SEMESTER-IV

Project (PGCSE401P) Year Of Study- 2017-2018

CO1: To enhance Practical exposure towards solving complex engineering problems in order to achieve Research and Industrial Exposure

Principal
GNIET, Nagpur