**Department of Computer Science and Engineering & Information Technology**

**AY: 2023-24, (Even Semester)**

**Course Opening Report**

**Programme Name: B.Tech (CSE)**

**Semester: 6**

**Course Name & Code: Operating Systems and Systems Programming (15B11CI412)**

**NBA Code: C311**

**Name of Course Coordinator(s): Sec 62: Dr. Vikash, Sec 128: Ashish Kumar**

**1. Course Outcomes:**

At the completion of the course, students will be able to

|  |  |  |
| --- | --- | --- |
| **COURSE OUTCOMES** | | **COGNITIVE LEVELS** |
| C311.1 | Explain the fundamental concepts along with the various components of operating systems and system programming. | Remember Level (C1) |
| C311.2 | Apply various OS scheduling techniques and algorithms for processes and threads | Apply Level (C3) |
| C311.3 | Elaborate the various resource management techniques of operating systems and their performance. | Evaluate Level (C5) |
| C311.4 | Omit the concept of IPC and describe various process synchronization techniques in OS. | Understand Level (C2) |

**2. CO-PO and CO-PSO Mapping:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CO** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** | **PSO1** | **PSO2** |
| **C311.1** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **2** | **0** | **0** |
| **C311.2** | **2** | **0** | **1** | **0** | **1** | **0** | **0** | **0** | **2** | **1** | **0** | **2** | **2** | **2** |
| **C311.3** | **2** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **2** | **2** | **2** |
| **C311.4** | **3** | **3** | **3** | **3** | **3** | **0** | **0** | **0** | **3** | **3** | **3** | **3** | **3** | **3** |
| **Avg** | **2** | **3** | **2** | **3** | **2** | **1** | **0** | **0** | **3** | **2** | **3** | **2** | **2** | **2** |

**3. Identified gaps in Syllabus/ Course Description (If Any):**

|  |  |  |  |
| --- | --- | --- | --- |
| **Topic to be introduced** | **Strengthens CO** | **Strengthens PO,PSO** | **Method of Identification** |
| Tizen OS – A case study | C311.5 | PO5, PO6, PO7,PO8,PO10,PO12 | PEOs, POs and PSOs of the Programme |

**4. Modifications in Syllabus/ Course Description (If Any):**

|  |  |  |
| --- | --- | --- |
| **Details of Modification (Addition/ Removal)** | **Justification** | **Strengthens POs/PSOs** |
| Tizen OS – A case study | Need to introduce new trending OS | PO5, PO6, PO7,PO8,PO10,PO12 |

**5. Actions for Improving CO Attainments:**

|  |  |  |  |
| --- | --- | --- | --- |
| **COs** | **Attainments in 2022-23** | **Action to be taken in 2022-23 to improve CO attainment** | **Strengthens POs/PSOs** |
| **C311.1** | **No Data** |  |  |
| **C311.2** | **No Data** |  |  |
| **C311.3** | **No Data** |  |  |
| **C311.4** | **No Data** |  |  |

**\*\* Since the COs are revised in AY 2023-24, the actions to be taken mentioned here are for achieving better attainments in each CO. These actions are derived from the suggestions provided in previous years closing report after discussion with faculty members teaching the course.**

**6. Innovative Teaching and Learning Method to be used:**

* Case studies of Modern Operating systems discussed
* Topic-based hands-on programming sessions introduced during tutorial hours
* Discussion on recent trends and industry innovations during lecture hours along with the regular syllabus
* References using animations and videos to be used for a better understanding of basic topics.
* More Questions/numerical with different scenarios will be discussed in lecture and tutorial classes for a deeper understanding of process
* management concepts and threads in OS

**7. Strategies for:**

* **Weak Learners:**
* **Bright Students:**

**8. Innovative Evaluation Strategy to be used (If any):**

**Signature: Signature:**

**Module Coordinator: Course Coordinator:**

**nwkc Sec 62: Dr. Vikash, Sec 128: Ashish Kumar**