Central University of Jammu
DEPARTMENT OF COMPUTER SCIENCE & IT

No.: CUJ/CSIT/2019/343   Dated: 17th May 2019

The following faculty of the Department were involved in **Design and Development of new curriculum and Courses** for the Integrated M.Sc. (Computer Science)-MCA, MCA and M.Tech programmes during the years 2013 to 2017 as per the details given below:

S.No.	Course No	Course Name	Credits	Name of Faculty
1.	MCSA 375	E-Commerce	4	DR.BHAVNA ARORA
2.	MCSA 175	Fundamentals of Computers(IDC)	4	DR.BHAVNA ARORA
3.	MCSA 275	Advanced Computer Concepts(IDC)	4	DR.BHAVNA ARORA
4.	MCSA 475	Information Security and Cyber law (IDC)	4	DR.BHAVNA ARORA
5.	MCSA 101	Programming Methodology and C- Language	4	MR.NEERENDRA KUMAR
6.	MCSA 102	Computer Organization and Architecture	4	DR.DEEPTI MALHOTRA
7.	MCSA 103	Operating System	4	DR.ARVIND SELWAL
8.	MCSA 104	Database Management System	4	DR.BHAVNA ARORA
9.	MCSA201	Data Structure using C	4	DR.DEEPTI MALHOTRA
10.	MCSA202	Object Oriented programming using C++	4	MR.NEERENDRA KUMAR
11.	MCSA203	Computer Networks and data communication	4	DR.BHAVNA ARORA
12.	MCSA204	Discrete Mathematics	4	DR.ARVIND SELWAL
13.	MCSA 301	Analysis and design of Algorithms	4	DR.ARVIND SELWAL
14.	MCSA 302	Internet and Java Programming	4	MR.NEERENDRA KUMAR
15.	MCSA 303	Theory of Computation	4	DR.DEEPTI MALHOTRA
16.	MCSA402	Computer Graphics	4	DR.ARVIND SELWAL
17.	MCSA403	Artificial Intelligence	4	DR.ARVIND SELWAL
18.	MCSA411	Probability and Statistics	4	PROF.DEVANAND
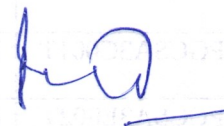
19.	MCSA412	Numerical Computing	4	MR.NEERENDRA KUMAR
20.	MCSA413	Microprocessors	4	DR.DEEPTI MALHOTRA
21.	MCSA 414	Computer Based Optimization Techniques	4	PROF.DEVANAND
22.	MCSA415	Compiler design	4	DR.ARVIND SELWAL
23.	MCSA416	Information System	4	DR.BHAVNA ARORA
24.	MCSA511	Image Processing	4	DR.ARVIND SELWAL
25.	MCSA512	Mobile Computing	4	DR.BHAVNA ARORA
26.	MCSA513	Grid and Cloud Computing	4	DR.DEEPTI MALHOTRA
27.	MCSA514	Advanced Database Systems	4	DR.BHAVNA ARORA
28.	MCSA515	Parallel Processing and Distributed Systems	4	MR NEERENDRA KUMAR
29.	MCSA516	Simulation and Modelling	4	PROF.DEVANAND
30.	MCSA501	Neural Networks and Genetic Algorithms	4	DR.ARVIND SELWAL
31.	MCSA502	Data Warehousing and data mining	4	DR.BHAVNA ARORA
32.	MCSA503	Network Security and Cryptography	4	DR.BHAVNA ARORA
33.	MCSC301	Theory of Computation	4	DR.ARVIND SELWAL
34.	MCSC303	Computer Graphics	4	DR.BHAVNA ARORA
35.	MCSC311	Knowledge Based systems	4	DR.BHAVNA ARORA
36.	MCSC314	Computer Based Optimization Techniques	4	PROF.DEVANAND
37.	MCSC315	Information System	4	DR.BHAVNA ARORA
38.	MCSC411	Image Processing	4	DR.ARVIND SELWAL
39.	MCSC412	Business Intelligent Systems	4	DR.BHAVNA ARORA
40.	MCSC413	Network Security	4	DR.BHAVNA ARORA
41.	MCSC414	Cloud Computing	4	DR.DEEPTI MALHOTRA
42.	MCSC415	Open Source Technology	4	DR.ARVIND SELWAL
43.	MCSC416	Simulation & Modelling	4	PROF.DEVANAND
44.	MCSC418	Natural Language Processing	4	DR.BHAVNA ARORA
45.	MCSC419	Cryptography	4	DR.BHAVNA ARORA

46.	PGCSA1C001T	Principles of Programming Languages	4	MR.NEERENDRA KUMAR
47.	PGCSA1C002T	Operating System	4	DR.ARVIND SELWAL
48.	PGCSA1C003T	Computer Architecture and Organization	4	DR.ARVIND SELWAL
49.	PGCSA1E001T	Operation Research	4	PROF.DEVANAND
50.	PGCSA1E002T	Current trends & technologies	4	DR.BHAVNA ARORA
51.	PGCSA1E003T	Web Scripting & Mark-up Languages	4	MR.NEERENDRA KUMAR
52.	PGCSA1F001T	Mathematical Foundation of Computer Science	4	DR.ARVIND SELWAL
53.	PGCSA2C001T	Data Structures	4	DR.DEEPTI MALHOTRA
54.	PGCSA2C003T	OOP using Java	4	MR.NEERENDRA KUMAR
55.	PGCSA2E001T	Image Processing	4	DR.ARVIND SELWAL
56.	PGCSA2E002T	Parallel Computing	4	DR.DEEPTI MALHOTRA
57.	PGCSA2E003T	Simulation & Modelling	4	PROF.DEVANAND
58.	PGCSA2F001T	Computer Hardware & Troubleshooting	4	DR.ARVIND SELWAL
59.	PGCSA2F002T	Imaging & Editing Tools	4	DR.BHAVNA ARORA
60.	PGCSA3C002T	Database Management System	4	DR.BHAVNA ARORA
61.	PGCSA3C003T	Design and analysis of algorithms	4	DR.DEEPTI MALHOTRA
62.	PGCSA3C001T	Ecommerce	4	DR.BHAVNA ARORA
63.	PGCSA3E002T	Cyber Security	4	DR.BHAVNA ARORA
64.	PGCSA3E003T	Multimedia	4	DR.BHAVNA ARORA
65.	PGCSA4C001T	Theory of Computation	4	DR.DEEPTI MALHOTRA
66.	PGCSA4C002T	Microprocessor	4	DR.DEEPTI MALHOTRA
67.	PGCSA4F001T	Open Source Technology	4	DR.ARVIND SELWAL
68.	PGMTH1C003T	Advanced Operating Systems	4	DR.DEEPTI MALHOTRA
69.	PGMTH1E001T	Parallel and Distributed Computing	4	DR.DEEPTI MALHOTRA
70.	PGMTH1E002T	Network security and cryptography	4	DR.BHAVNA ARORA
71.	PGMTH1E003T	Advanced data Mining and warehousing	4	DR.BHAVNA ARORA
72.	PGMTH1E004T	Wireless and Mobile networks	4	DR.BHAVNA ARORA

73.	PGMTH1E005T	Operation Research	4	PROF.DEVANAND
74.	PGMTH1E006T	Open Source Technology	4	DR.ARVIND SELWAL
75.	PGMTH1F001T	Statistical Methods for Computer Science	4	DR.ARVIND SELWAL
76.	PGMTH2C001T	Cyber Security	4	DR.BHAVNA ARORA
77.	PGMTH2C002T	Big Data Analytics	4	DR.ARVIND SELWAL
78.	PGMTH2C003T	Cloud and Grid Computing	4	DR.DEEPTI MALHOTRA
79.	PGMTH2E002T	Advanced Computer Architecture	4	DR.DEEPTI MALHOTRA
80.	PGMTH2E003T	Simulation and Modelling	4	PROF.DEVANAND
81.	PGMTH2E004T	Digital Image Processing	4	DR.ARVIND SELWAL
82.	PGMTH2E006T	SMAC and IoT	4	DR.BHAVNA ARORA
83.	PGMTH2F002T	Oracle Database Development	4	DR.ARVIND SELWAL
84.	PGMTH3C001T	Soft Computing techniques	4	DR.ARVIND SELWAL
85.	PGMTH3C003T	Biometric and Pattern Recognition	4	DR.ARVIND SELWAL
86.	PGMTH3E002T	Scientific Computing	4	DR.ARVIND SELWAL
87.	PGMTH3E003T	Computer Animation	4	DR.BHAVNA ARORA

Dr. Yashwant Singh   विभागाध्यक्ष / Head
Head   कंप्यूटर विज्ञान एवं सूचना प्रौद्योगिकी विभाग
Department of Computer Science and IT
जम्मू केंद्रीय विश्वविद्यालय / Central University of Jammu

Prof. Devanand
Dean,
School of Basic & Applied Sciences   अधिष्ठाता / Dean
आधारिक एवं अनुप्रयुक्त विज्ञान विद्यालय
School of Applied Sciences
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Department of Computer Science and IT
Central University of Jammu

No.: CUJ/CSIT/2017/1409   Dated: 06th April, 2017

The following is the details of the design and development of **new curriculum and courses** by the faculty members of the department:

MCA 5th SEMESTER UNDER CBCS SCHEME

S. No.	Course Title	Course Credits	Name of the Faculty
1.	Compiler Design	4	Dr. Deepti Malhotra
2.	Artificial Intelligence	4	Er. Abhishek Sambyal
3.	Computer Graphics	4	Er. Arvind Selwal
4.	Advanced Database Management System	4	Dr Bhavna Arora
5.	Network Security	4	Dr Bhavna Arora
6.	Soft Computing	4	Er. Arvind Selwal

MTECH 3rd SEMESTER

S. No.	Course Title	Course Credits	Name of the Faculty
1.	Soft Computing Techniques	4	Er. Arvind Selwal
2.	Advanced Software Engineering	4	Dr. Deepti Malhotra
3.	Biometric & Pattern Recognition	4	Er. Arvind Selwal
4.	Smartphone Computing & Applications	4	Er. Nikita Gandotra
5.	Scientific Computing	4	Er. Abhishek Sambyal
6.	Computer Animation	4	Dr Bhavna Arora

Prof. Devanand
Head of the Department
विभागाध्यक्ष/Head
कंप्यूटर विज्ञान एवं सूचना प्रौद्योगिकी विभाग
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DEPARTMENT OF COMPUTER SCIENCE & IT

CENTRAL UNIVERSITY OF JAMMU

No.: CUJ/CSIT/2017/1510   **Dated: 31ˢᵗ May, 2017**

The following is the details of the design and development of **new curriculum and courses** by the faculty members of the department:

Applicable For: M.Tech programme

1ˢᵗ SEMESTER

Course Code	Course Title	Credits	Allocated To
	CORE COURSES		
PGMTH1C001T	Design and Analysis of Advanced Algorithm	4	Dr. Deepti Malhotra
PGMTH1C002T	Network Security & Cryptography	4	Dr. Bhavna Arora
PGMTH1C003T	Big Data Analytics	4	Er. Abhishek Sambyal
PGMTH1E001T	Advanced Web Technologies	4	Er. Nikita Gandotra
PGMTH1E002T	Wireless and mobile networks	4	Dr. Bhavna Arora
PGMTH1E003T	Operation Research	4	Dr. Devanand Padha
PGMTH1E004T	Open Source Technologies	4	Er. Abhishiek Sambyal
PGMTH1E005T	Advanced Operating System	4	Er.Arvind Selwal
PGMTH1F001T	Statistical Method for Computer Science	2	Dr. Devanand Padha

2ⁿᵈ SEMESTER

Course Code	Course Title	Credits	Allocated To
	CORE COURSES		
PGMTH2C001T	Cyber Security	4	Dr. Bhavna Arora
PGMTH2C002T	Digital Image Processing	4	Er. Arvind Selwal
PGMTH2C003T	Cloud & Grid Computing	4	Dr. Deepti Malhotra
PGMTH2E001T	Advanced Computer Architecture	4	Dr. Deepti Malhotra
PGMTH2E002T	Simulation & Modelling	4	Dr. Devanand Padha
PGMTH2E003T	Soft Computing	4	Er. Arvind Selwal
PGMTH2E004T	Machine Learning	4	Er. Abhishiek Sambyal
PGMTH2E005T	SMAC & Internet of Things	4	Dr. Bhavna Arora
PGMTH2F001T	Design and Implementation of Computer Networks	2	Er. Nikita Gandotra
PGMTH2F002T	Database Design Development	2	Er. Arvind Selwal
PGMTH2F003T	Research Methodology	2	Er. Nikita Gandotra

(Prof.Devanand)
Head of Department

विभागाध्यक्ष / Head
कंप्यूटर विज्ञान एवं सूचना प्रौद्योगिकी विभाग
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Department of Computer Science and IT
Central University of Jammu

No.: CUJ/CSIT/2018/504(i)   Dated: 08th Nov., 2018

The following is the details of the design and development of **new curriculum and courses** by the faculty members of the department:

Applicable for: M. Tech. Computer Science and Technology (w.e.f. 2018 for batch 2018-19)

Semester-II

S. No.	Faculty Name	Course(s)
1.	Prof. Devanand	1. Modelling Simulation and Optimization (4 credits)
2.	Dr. Yashwant Singh	1. Advanced Database Management Systems (4 credits) 2. Advanced Software Design Development & Testing (4 credits)
3.	Dr. Bhavna Arora	1. Network & Cyber Security (4 credits) 2. Data Warehousing and Data Mining (4 credits)
4.	Dr. Arvind Selwal	1. Big Data Analytics (4 credits) 2. Soft Computing (4 credits)
5.	Dr. Deepti Malhotra	1. Cloud Computing (4 credits) 2. Advanced Java Programming (4 credits) 3. Computer Vision (4 credits)
6.	Mr. Neerendra Kumar	1. Computing Systems for Robotics (4 credits) 2. Advanced Web Technologies (4 credits) 3. Agile Software Development (4 credits)

Dr. Yashwant Singh विभागाध्यक्ष / Head
Head of the Department कंप्यूटर विज्ञान एवं सूचना प्रौद्योगिकी विभाग
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Department of Computer Science and Information Technology
Central University of Jammu

No.: CUJ/CSIT/2019/338   Dated: 16th May, 2019

The following is the details of the design and development of **new curriculum and courses** by the faculty members of the department:

Applicable for: Ph.D course work for the session w.e.f. 2019.

Sr. No.	Subject	Credits	Marks	Name of the faculty
1.	Research Methodology	4	100	Dr. Yashwant Singh
2.	Scientific Programming and Tools	4	100	Dr. Arvind Selwal
3. Elective-I	i. Simulation and Modelling	4	100	Prof. Devanand
	ii. Internet of Things (IoT)	4	100	Dr. Yashwant Singh
	iii. Machine Learning	4	100	Dr. Arvind Selwal
	iv. Information Security	4	100	Dr. Bhavna Arora
	v. Data Analytics and Data Science	4	100	Dr. Deepti Malhotra
	vi. Computing Systems for Robotics	4	100	Neerendra Kumar
4. Elective-II	i. Wireless Sensor Networks	4	100	Dr. Yashwant Singh
	ii. Natural Language Processing	4	100	Dr. Bhavna Arora
	iii. Data Mining Techniques	4	100	Dr. Deepti Malhotra
	iv. Pattern Recognition	4	100	Dr. Arvind Selwal
	v. Digital Image Processing	4	100	Dr. Arvind Selwal
	vi. Optimisation Techniques	4	100	Prof. Devanand
	vii. SCADA system and Applications	4	100	Dr. Yashwant Singh

Dr. Yashwant Singh
Head of the Department
कंप्यूटर विज्ञान एवं सूचना प्रौद्योगिकी विभाग
Department of Computer Science and IT
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Prof. Devanand
Dean
School of Basic & Applied Sciences
अधिष्ठाता / Dean
आधारिक एवं अनुप्रयुक्त विज्ञान विद्यालय
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Department of Computer Science and IT
Central University of Jammu

No.: CUJ/CSIT/2021/1286   Dated: 04ᵗʰ Oct., 2021

The following is the details of the design and development of **new curriculum and courses** by the faculty members of the department:

Applicable for: M. Tech. (Computer Science and Technology), 2021-22.

S. No.	Faculty Name	Course(s) Name	Course Credits
1.	Dr. Bhavna Arora	1. Cryptography	4
2.	Dr. Arvind Selwal	1. AI and Machine Learning	4
		2. Digital Image Processing	4
		3. Scientific Languages	4
3.	Dr. Neerendra Kumar	1. Cyber Physical System	4
4.	Dr. Deepti Malhotra	1. ICS/SCADA Security Fundamentals	4

Dr. Yashwant Singh विभागाध्यक्ष / Head
Head of the Department सूचना प्रौद्योगिकी विभाग
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Prof. Devanand
Dean
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अधिष्ठाता / Dean
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DEPARTMENT OF COMPUTER SCIENCE & IT
Central University of Jammu
राया-सूचानी**(बागला)**, जिला**सांबा** -181143,जम्मू (जम्मूएवंकश्मीर)
Rahya-Suchani **(Bagla)**, District **Samba-181143**, Jammu **(J &K)**

No.: CUJ/CSIT/2022/370

Date: 04/08/2022

Following is the detail of the design and development of the **new curriculum and courses** by the faculty members of the department:
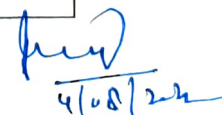
Applicable For: M.Tech.(Computer Science and Technology) w.e.f. 2022-23 (According to NEP-2020)

Semester – I

S. No.	Course Title	Credit	Name of the Faculty
1	Advanced Data Structures & Algorithms	4	Dr. Deepti Malhotra
2	Artificial Intelligence	4	Dr. Arvind Selwal
3	Cloud Computing and Architectures	4	Dr. Deepti Malhotra
4	Information Security	4	Dr. Bhavna Arora
5	Secure Industrial Control Systems	4	Dr. Deepti Malhotra
6	Modelling Simulation & Optimization	4	Dr. Arvind Selwal
7	Digital Forensics	4	Dr. Bhavna Arora
8	Internet of Things	4	Dr. Arvind Selwal
9	Fundamentals of Computers	4	Dr. Bhavna Arora
10	Soft Computing	4	Dr. Arvind Selwal
11	Mobile Applications Development	4	Dr. Neerendra Kumar
12	Digital Image Processing	4	Dr. Arvind Selwal
13	Advanced Software Design, Development and Testing	4	Dr. Neerendra Kumar
14	Cyber Physical Systems	4	Dr. Neerendra Kumar
15	Advanced Database Management Systems	4	Dr. Bhavna Arora
16	Programming in C	4	Dr. Neerendra Kumar
17	Soft Skills	2	Dr. Yashwant Singh
18	Environmental Studies	2	Dr. Yashwant Singh

04/08/2022

Dr. Yashwant Singh
विभागाध्यक्ष / Head
कंप्यूटर विज्ञान एवं सूचना प्रौद्योगिकी विभाग
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Prof. Devanand

अधिष्ठाता / Dean
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Semester – II

S. No.	Course Title	Credit	Name of the Faculty
19	Data Communication and Computer Networks	4	Dr. Deepti Malhotra
20	Network & Cyber Security	4	Dr. Bhavna Arora
21	Natural language Processing	4	Dr. Bhavna Arora
22	Big Data Analytics	4	Dr. Deepti Malhotra
23	Agile Software Development	4	Dr. Neerendra Kumar
24	Wireless Sensor Networks	4	Dr. Deepti Malhotra
25	Scientific Computing	4	Dr. Arvind Selwal
26	Pattern Recognition	4	Dr. Arvind Selwal
27	Computing Systems for Robotics	4	Dr. Neerendra Kumar
28	Advanced Computer Concepts	4	Dr. Neerendra Kumar
29	Computer Vision	4	Dr. Arvind Selwal
30	Advanced Object Oriented Programming	4	Dr. Neerendra Kumar
31	Data Warehousing and Mining	4	Dr. Deepti Malhotra
32	Cryptography	4	Dr. Bhavna Arora
33	Machine/Deep Learning	4	Dr. Deepti Malhotra
34	Information Security and Cyber Law	4	Dr. Bhavna Arora
35	Research Methodology	2	Prof. Devanand
36	Research Ethics and IPR	2	Prof. Devanand

04/08/2022

Dr. Yashwant Singh
Head of the Department
विभागाध्यक्ष/Head
कंप्यूटर विज्ञान एवं सूचना प्रौद्योगिकी विभाग
Department of Computer Science and IT
विश्वविद्यालय/Central University of Jammu

4/08/2022

Prof. Devanand
Dean
School of Basic and Applied Science

अधिष्ठाता/Dean
आधारिक एवं अनुप्रयुक्त विज्ञान विद्यालय
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