SCHEME AND SYLLABI FOR
BACHELOR OF TECHNOLOGY /MASTER OF TECHNOLOGY
(DUAL DEGREE PROGRAMMES)

IN
COMPUTER SCIENCE AND ENGINEERING – ARTIFICIAL INTELLIGENCE

OFFERED BY
UNIVERSITY SCHOOL OF INFORMATION, COMMUNICATION AND TECHNOLOGY
AT THE DWARKA CAMPUS OF

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
AN UNIVERSITY ESTABLISHED BY THE GOVERNMENT OF NCT OF DELHI

Approval History

1. 1st year scheme and syllabus (1st to 2nd semester) and Framework for higher semesters (3rd to 8th semesters or 2nd to 4th year) implemented from 2025-26 batch approved by Board of Studies of USICT on 28/07/2025.
2. 1st year scheme and syllabus (1st to 2nd semester) and Framework for higher semesters (3rd to 8th semesters or 2nd to 4th year) implemented from 2025-26 batch approved by Academic Council Sub-committee on 01/08/2025.

Vision of the School

Create high-quality engineering and computer application professionals

Mission of the School

To serve humanity by creating professionally competent, socially sensitive engineers with high ethical values who can work as individuals or in groups in multicultural global environments.

Introduction

The University School of Information, Communication and Technology (USICT) offers Bachelor of Technology / Master of Technology (Dual Degree) programme(s) of study in the following five disciplines of 4+2 years duration. Namely:

1. Computer Science and Engineering
2. Information Technology
3. Electronics and Communications Engineering
4. Computer Science and Engineering – Artificial Intelligence
5. Computer Science and Engineering – Data Science

In addition, the School offers four regular programmes at Master of Technology Level and a programme at the level of Master of Computer Applications.

This document describes the Bachelor of Technology part of the dual degree programmes for the following programmes:

a) Computer Science and Engineering – Artificial Intelligence

This document shall describe and define the scheme of examinations and syllabi for the 4 year part.

The document is prepared after extensive discussion among the stakeholders. The following has been guiding principles for the design of this document:

1. AICTE Handbook 2024-25 applicable till 2026-27
2. The eligibility conditions for the admissions to these programmes. The eligibility conditions for these programmes of studies do not require chemistry to be studied at the 10+2 level.
3. The multiple entry and multiple exit principle of NEP requires a major overhaul of the structure of the scheme and syllabi. This requires that a minimum knowledge of the specific discipline be taught in the first year itself so that a Certificate may be awarded.
4. Minor specializations shall be offered. This allows the students to study not only the core foundational papers / subjects in the discipline but also subjects in the focus areas and emerging areas of technology that are relevant to the discipline and of related disciplines.
5. Subject of Graduate Aptitude Test in Engineering (GATE), for these disciplines shall be studied by the students, as core subjects.
6. Multiple Exit and re-entry after completion of every academic year of study.
7. Multiple routes for the award of the degree. This leads to a major revision of the scheme of examinations, as it implies that engineering papers have to be offered in the 1st year.
8. Value Added Course on “Environment Studies” of 2 credits to be taught by faculty from University School of Environment Management.
9. Value Added Course on “Human Values and Ethics” of 2 credits to be taught by faculty from University Centre for Human Values.
10. Value Added Course on “Science and Practice of Happiness” of 2 credits to be taught by faculty from University School of Environment Management.
11. Inter-diciplinary Courses of 9 Credits to be studied by students from other discipline than their own.
12. Maximum Credits: 176
13. Minimum Credits 160

Note:

A. The document currently specifies the following:
   1. The scheme framework for the 4 year Bachelor of Technology part of the Dual Degree programme.
   2. The scheme and syllabus of the first year.
   3. The regulation for exit and re-entry into the programme after completion of every academic year.
   4. The regulation for the award of the degree.
B. The document only provides for the framework for the following (the detailed and finalization of these shall occur in subsequent meeting of the Board of Studies of the School):
   1. The final scheme and syllabus of the second to fourth year of study.
   2. The minor specializations that may be offered to the students.

Acronyms:

APC:	Academic programme committee comprising of all faculty of the school and as defined in the implementation rules.
BoS:	Board of Study of the school, USICT.
USICT:	University School of Information, Communication and Technology.
L:	Number of Lecture hours per week
T/P:	Number of Tutorial / Practical Hours per week
C:	Number of credits assigned to a course / paper
COE:	Controller of Examinations of the Examinations Division of the University.
SGPA/CGPA:	Semester/Cumulative Grade Point Average.
NUES:	No term end examination shall be held. The evaluation shall be conducted as per the scheme of examinations as described in the scheme of study.
PC:	Programme Core, that is course / paper offered in the discipline of the programme as a compulsory paper.
PCE:	Programme Core Elective, that is elective course / paper offered in the discipline of the programme.

Definitions:

Batch: The batch of the student shall mean the year of the first time enrolment of the students in the programme of study in the first semester. Lateral entry students admitted in the 3rd semester / 2nd year shall be designated as students admitted in the previous batch as they are admitted one year later. A student re-admitted in a programme of study in a lower / later batch shall be considered as the student of the original batch for the purpose calculation of duration of study.

Programme of study: shall mean Bachelor of Technology part of the Dual Degree programme.

Major specialization: shall mean the discipline in which the student is admitted / upgraded or transferred.

Paper / Course shall be treated as synonyms. A paper is one unit of curriculum taught, in general, in one particular semester.

NOTE: THE CURRENT DOCUMENT DEFINES THE FRAMEWORK FOR THE SCHEME OF THE FIRST 4 YEARS (8 SEMESTER) CORRESPONDING TO THE BACHELOR OF TECHNOLOGY FOR THE COMPUTER SCIENCE AND ENGINEERING DISCIPLINE, WHICH IS THE PART OF THE BACHELOR OF TECHNOLOGY / MASTER OF TECHNOLOGY PART OF THE DUAL DEGREE PROGRAMMES OFFERED BY USICT AT THE DWARKA CAMPUS OF THE UNIVERSITY. THE DETAILED SCHEME AND SYLLABUS FOR THE FIRST YEAR (SEMSESTER 1 AND 2) IS APPROVED.

Programme Outcomes

1. ***Engineering Knowledge*** (**PO01**): Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. ***Problem Analysis*** (**PO02**): Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
3. ***Design/Development of Solutions*** (**PO03**): Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. ***Conduct Investigations of Complex Problems*** (**PO04**): Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems:
    a. that cannot be solved by straightforward application of knowledge, theories and techniques applicable to the engineering discipline as against problems given at the end of chapters in a typical text book that can be solved using simple engineering theories and techniques;
    b. that may not have a unique solution. For example, a design problem can be solved in many ways and lead to multiple possible solutions;
    c. that require consideration of appropriate constraints / requirements not explicitly given in the problem statement such as cost, power requirement, durability, product life, etc.;
    d. which need to be defined (modelled) within appropriate mathematical framework; and
    e. that often require use of modern computational concepts and tools, for example, in the design of an antenna or a DSP filter.
5. ***Modern Tool Usage*** (**PO05**): Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
6. ***The Engineer and Society*** (**PO06**): Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. ***Environment and Sustainability*** (**PO07**): Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. ***Ethics*** (**PO08**): Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. ***Individual and Team Work*** (**PO09**): Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. ***Communication*** (**PO10**): Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. ***Project Management and Finance*** (**PO11**): Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. ***Life-long Learning*** (**PO12**): Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

Programme Education Objectives (PEO)

PEO 1: Our students will apply their knowledge and skills to succeed in their careers and/or obtain advanced degrees.

PEO 2: Our students will behave ethically and responsibly, and will remain informed and involved as full participants in their profession and society.

PEO 3: Our students will creatively solve problems, communicate effectively, and successfully function in diverse and inclusive multi-disciplinary teams.

PEO4 4: Our students will apply principles and practices of computing grounded in mathematics, science and artificial intelligence to successfully complete engineering projects to meet customer business objectives and/or productively engage in research.

Programme Specific Outcomes (PSO)

On completion of the programme of study, the students will have the ability to:

PSO 1: Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

PSO 2: Apply engineering analysis & design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

PSO 3: Communicate effectively with a range of audiences.

PSO 4: Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

PSO 5: Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

PSO 6: Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

PSO 7: Acquire and apply new knowledge as needed, using appropriate learning strategies.

PEO to PO Mapping

PEO/PO	*PO01*	*PO02*	*PO03*	*PO04*	*PO05*	*PO06*	*PO07*	*PO08*	*PO09*	*PO10*	*PO11*	*PO12*
PEO 1	3	1	1	1	1	1	1	1	1	1	1	3
PEO 2	1	-	-	-	-	3	3	3	-	-	-	3
PEO 3	3	3	3	3	3	2	2	1	1	3	3	-
PEO 4	3	3	3	3	3	-	-	-	1	1	3	-

(scale 1: low, 2: Medium, 3: High)

PSO to PO Mapping

PSO/PO	*PO01*	*PO02*	*PO03*	*PO04*	*PO05*	*PO06*	*PO07*	*PO08*	*PO09*	*PO10*	*PO11*	*PO12*
PSO 1	3	-	-	-	-	-	-	-	-	-	-	3
PSO 2	-	3	3	3	3	3	3	-	-	-	-	-
PSO 3	-	-	-	-	-	3	-	-	3	3		-
PSO 4	-	-	-	-	-	3	3	3	1	-	-	-
PSO 5	-	-	-	-	-	-	-	1	3	1	3	-
PSO 6	1	2	2	3	3	1	1	1	-	-	-	3
PSO 7	-	-	-	-	-	-	-	-	-	-	-	3

(scale 1: low, 2: Medium, 3: High)

First Year Scheme of Examinations

First Semester					
Group	**Code**	**Paper**	**L**	**P**	**Credits**
Theory Papers					
ES	ICT-101	Programming for Problem Solving	3	-	3
ES	ICT-103	Basics of Electrical Engineering	3	-	3
ES	ICT-105	System Modeling Techniques – I	3	-	3
ES	ICT-107	Engineering Mechanics	3	-	3
AEC	ICT-109	Communication Skills	3	-	3
VAC	HVEE-113	Human Values & Ethics[1+]	2	-	2
MDC		Multidisciplinary Course (One paper to be offered to the students by the school)			
	ICT-111	PCB design	3	-	3
	ICT-121	Introduction to Manufacturing Process	3	-	3
		* Any other course / paper offered by any other school in the Dwarka campus of the University of three credits		-	3
Practical/ Viva Voce					
ES	ICT-151	Programming for Problem Solving Lab	-	2	1
ES	ICT-153	Basics of Electrical Engineering Lab	-	2	1
Total					**22**

Group	Code	Paper	L	P	Credits
VAC	ICT-352	**NSS/NCC/Cultural Clubs/Technical Society/ Technical Club/Institution's Innovation Council	-	-	2

Note: Orientation/ Student Induction program will be offered to the students, right at the start of the first semester.

[+]This is an NUES paper. Comprehensive evaluation of the students by the concerned teacher, out of 100. All assessment shall be conducted by the concerned teacher. There shall not be any term end / semester end examinations

**This is an NUES paper. Comprehensive evaluation of the students by the concerned coordinator of NCC / NSS / Cultural Clubs / Technical Society / Technical Clubs, out of 100 as per the evaluation schemes worked out by these activity societies, organizations; the Coordinators shall be responsible for the evaluation of the same. These activities shall start from the 1st semester and the evaluation shall be conducted at the end of the 6th semester for students admitted in the first semester. Students admitted in the 2nd year (3rd semester) as lateral entry shall undergo training or participate in the activities for the period of 3rd semester to 6thsemester only.

[1]This paper/course shall be taught by faculty of the University Centre for Human Values. The syllabus shall be provided by the University Centre for Human Values.

Note:

1. ICT-111 is offered from the Electronics and Communication Engineering discipline while ICT-121 is offered from the Mechanical and Automation Engineering Discipline.

Second Semester					
Group	**Code**	**Paper**	**L**	**P**	**Credits**
Theory Papers					
ES	ICT-102	Data Structures	3	-	3
SEC	ICT-104	Python Programming	3	-	3
ES	ICT-106	Digital Electronics and Computer Organization	3	-	3
ES	ICT-108	System Modeling Techniques - II	3	-	3
ES	ICT-110	Semiconductor Engineering and its applications	3	-	3
VAC	ICT-112	Environment Studies#+	2	-	2
Practical/ Viva Voce					
ES	ICT-152	Data Structures Lab	-	2	1
SEC	ICT-154	Python Programming Lab	-	2	1
ES	ICT-156	Digital Electronics and Computer Organization Lab	-	2	1
ES	ICT-158	System Modeling Techniques Lab	-	2	1
ES	ICT-160	Semiconductor Engineering and its applications lab	-	2	1
Total					**22**

#This paper/course shall be taught by faculty of the University School of Environment Management.

+This is an NUES paper. Comprehensive evaluation of the students by the concerned teacher, out of 100. All assessment shall be conducted by the concerned teacher. There shall not be any term end / semester end examinations

Note:

1. Students admitted through lateral entry[1] as per provision of the university in the 2nd year of the respective programme shall be exempt from the 1st year credits. The lateral entry students shall not study the subjects/courses being offered in the 1st year.

[1] Lateral entry is admissions after a diploma in engineering, in a running batch of admitted students of a Bachelor of Engineering / Technology programme, in the third semester or beginning of the 2nd year of study of the regular batch admitted in 1st semester in the previous year, as compared to the lateral entry admission year.

Second Year Scheme of Examinations

Third Semester					
Group	**Code**	**Paper**	**L**	**P**	**C**
Theory Papers					
PC	ICT-201	Foundations of Computer Science	4	-	4
PC	ICT-203	Database Management Systems	3	-	3
PC	ICT-205	Object Oriented Programming using C++	3	-	3
PC	ICT-207	Design and Analysis of Algorithms	3	-	3
MDC		Multidisciplinary Course (Any one to be taken by the students)			
	ICT-217T	[1]Digital Signal processing - I	2	-	2
	ICT-217P	[1]Digital Signal Processing Laboratory - I	-	2	1
	ICT-219T	[1]Digital System Design – I	2	-	2
	ICT-219P	[1]Digital System Design – I Lab	-	2	1
	ICT-221	Engineering Electromagnetics	3	-	3
	ICT-223T	[1]Microprocessor and Interfacing - I	2	-	2
	ICT-223P	[1] Microprocessor and Interfacing – I Laboratory	-	2	1
		* Any other course / paper offered by any other school in the Dwarka campus of the University			3
		[%]One of the following papers shall be offered to the student of a section by the school	3	-	3
BS	ICT-209	Engineering Physics			
BS	ICT-211	Engineering Chemistry			
PCE	ICT-213	Computational Methods			
PCE	ICT-215	Computer Graphics			
Practical/ Viva Voce					
PC	ICT-251	Database Management Systems Lab	-	2	1
PC	ICT-253	Object Oriented Programming using C++	-	2	1
PC	ICT-255	Design and Analysis of Algorithms Lab	-	2	1
		#The laboratory course offered shall correspond to the Theory paper offered from ICT 209, ICT211, ICT 213 or ICT 215).	-	2	1
BS	ICT-257	Engineering Chemistry Lab			
BS	ICT-259	Engineering Physics Lab			
PCE	ICT-261	Computational Methods Lab			
PCE	ICT-263	Computer Graphics Lab			
Total					**23**

[1] ICT-217T and ICT-217P are one paper / course bifurcated into theory and practical, same is true for (ICT-219T, ICT-219P), and (ICT-223T, ICT-223P).

Note:

1. If a student is studying ICT217T and ICT217P in this semester, he or she shall study ICT214T and ICT214P in the fourth semester
2. If a student is studying ICT219T and ICT219P in this semester, he or she shall study ICT216T and ICT216P in the fourth semester
3. If a student is studying ICT223T and ICT223P in this semester, he or she shall study ICT220T and ICT220P in the fourth semester

Fourth Semester					
Group	**Code**	**Paper**	**L**	**P**	**C**
Theory Papers					
PC	ICT-202	Theory of Computation	3	-	3
PC	ICT-204	Probability and Stochastic Systems for Engineers	3	-	3
PC	ICT-206	Computer Networks	3	-	3
PC	ICT-208	Operating Systems	3	-	3
MDC		Multidisciplinary Course (Any one to be taken by the students)			
	ICT-214T	[1]Digital Signal Processing – II	2	-	2
	ICT-214P	[1]Digital Signal Processing – II Laboratory	-	2	1
	ICT-216T	[1]Digital System Design – II	2	-	2
	ICT-216P	[1]Digital System Design – II Lab	-	2	1
	ICT-218	Introduction to Robotics	3	-	3
	ICT-220T	[1]Microprocessor and Interfacing – II	2	-	2
	ICT-220P	[1]Microprocessor and Interfacing – II Laboratory	-	2	1
		* Any other course / paper offered by any other school in the Dwarka campus of the University			3
VAC	ICT-210	*Science and Practice of Happiness[2]	-	-	2
AEC	ICT-212	*Scientific Writing	2	-	2
Practical/ Viva Voce					
PC	ICT-252	Computer Networks Lab	-	2	1
PC	ICT-254	Operating Systems Lab	-	2	1
Total					**21**

*This is an NUES paper. Comprehensive evaluation by the concerned teacher, out of 100 marks.
[1] Similar to ICT-217T and ICT-217P.
[2]This paper/course shall be taught by faculty of the University Centre for Human Values. The syllabus shall be provided by the University Centre for Human Values.

Note:

1. If a student studied ICT217T and ICT217P in third semester, he or she shall study ICT214T and ICT214P in the fourth semester
2. If a student studied ICT219T and ICT219P in third semester, he or she shall study ICT216T and ICT216P in the fourth semester
3. If a student studied ICT223T and ICT223P in third semester, he or she shall study ICT220T and ICT220P in the fourth semester

Third Year Scheme of Examinations

Fifth Semester					
Group	**Code**	**Paper**	**L**	**P**	**Credits**
Theory Papers					
PC	ICT-301	Compiler Design	3	-	3
PC	ICT-303	Java Programming	3	-	3
SEC	ICT-305	Web Development	3	-	3
PC	[1]ICT-307	Artificial Intelligence & Knowledge Based Systems	3	-	3
PC	[1]ICT-309	Fundamentals of Machine Learning & Neural Networks	3	-	3
Practical/ Viva Voce					
PC	ICT-323	Compiler Design Lab	-	2	1
PC	ICT-325	Java Programming Lab	-	2	1
SEC	ICT-327	Web Development Lab	-	2	1
PC	[1]ICT-329	Artificial Intelligence & Knowledge Based Systems Lab	-	2	1
PC	[1]ICT-331	Fundamentals of Machine Learning & Neural Networks Lab	-	2	1
One paper/course from ICT-321/ICT-349					
AEC	ICT-321	*Summer Training (after 4th Semester) Report and Presentation	-	-	2
AEC	ICT-349	**Summer Project (after 4th Semester) Report and Presentation	-	-	2
Total			**15**	**6**	**22**

*NUES: Comprehensive evaluation by the committee of teachers, constituted by the Academic Programme Committee, out of 100 marks. Summer training shall be in an industrial organization (including Information Technology organization) with the approval of the Training and Placement officer of the School. It shall be of 4-6 week duration.

**NUES: Summer Project shall be under the supervision of a faculty of the University or any other academic organization with the approval of the class incharge of the 4th semester. The student must submit the project proposal in the 4th semester, duly signed by the concerned project mentor to the class incharge of the 4th semester, before the end of classes of the 4th semester.

[1]The credits for these papers are mandatorily required to be earned by the student for the award of the degree.

Sixth Semester					
Group	**Code**	**Paper**	**L**	**P**	**Credits**
Theory Papers					
PC	ICT-302	Software Engineering	3	-	3
PC	ICT-304	Optimization Techniques for Machine Learning	3	-	3
PC	[1]ICT-306	Deep Learning	3	-	3
PC	ICT-308	Search-based methods for Machine Learning	3	-	3
PC	[1]ICT-310	Reinforcement Learning and Sequential Decision Making	3	-	3
Practical/ Viva Voce					
PC	ICT-324	Software Engineering Lab	-	2	1
PC	ICT-326	Optimization Techniques for Machine Learning Lab	-	2	1
PC	[1]ICT-328	Deep Learning Lab	-	2	1
PC	ICT-330	Search-based methods for Machine Learning Lab	-	2	1
PC	[1]ICT-332	Reinforcement Learning and Sequential Decision Making Lab	-	2	1
VAC	ICT-322	**NSS/NCC/Cultural Clubs/Technical Society/ Technical Club/Institution's Innovation Council	-	-	2
Total				**2**	**22**

**NUES : Comprehensive evaluation of the students by the concerned coordinator of NCC / NSS / Cultural Clubs / Technical Society / Technical Clubs, out of 100 marks, as per the evaluation schemes worked out by these activity societies, organizations; the co-ordinators shall be responsible for the evaluation of the same. These activities shall start from the 1st semester and the evaluation shall be conducted at the end of the 6th semester.

[1]The credits for these papers are mandatorily required to be earned by the student for the award of the degree.

Fourth Year Scheme of Examinations

Note: The route for the award of the degree has to be chosen by the student at the end of the 6th semester or the 3rd year. That is**,** the students shall be allowed to choose from one of the following three routes, for the award of the degree:

a. **Regular route:** The students taking this route shall continue with the study of the courses / papers in the 7th semester of 24 credits and a project or internship in the 8th semester.

b. **Internship route:** The students taking this route shall be required to undergo Internship at an organization. The organization shall offer an Internship to the student. The Internship offer shall be through the Training and Placement officer of the school, only. Students shall not be allowed to accept an Internship through any route. The students shall be required to submit an internship report in both the 7th and 8th semester. The reports shall contain the journal kept by the student summarizing weekly work done, countersigned by the mentor allocated by the Internship mentor at the Organization. There shall an internal teacher also allocated to the student as a mentor for the Internship progress guidance and evaluation.

c. **Research route:** The research route is to be allowed only to students who have no "fail" paper till 6th semester, that is, all papers upto and including 6th semester have been passed by the student and after 6th semester the student has a CGPA of 7.5 or more. The students taking this route be required to join research internship under mentorship of an academician at an organization. The topic of work of the student and the mentor (including the organization) shall be approved by the APC of the school. The student is required to publish at least one conference paper in a reputed conference / journal (meaning thereby, that its proceeding (if it is a conference) or the paper shall be indexed in Web of Science and/or Scopus) before the submission of the 8th semester dissertation.

Seventh Semester (Regular Route)					
Group	**Code**	**Paper**	**L**	**P**	**Credits**
Papers					
PC	ICT-417T	Natural Language Processing and Large Language Models	3	-	3
	ICT-417P	Natural Language Processing and Large Language Models Lab	-	2	1
		OR			
		MOOCs[1]			4
PC	ICT-419T	Probabilistic Graphical Models and Inference	3	-	3
	ICT-419P	Probabilistic Graphical Models and Inference Lab	-	2	1
		OR			
		MOOCs[1]			4
PCE		Elective – 1 / MOOCs[1]	-	-	4
EAE		Elective – 2 /MOOCs[1]	-	-	4
Practical/ Viva Voce					
PC	ICT-403	***Minor Project - Report	-	-	4
One paper/course from ICT-321/ICT-349					
AEC	ICT-321	*Summer Training (after 6th Semester) Report and Presentation	-	-	2
AEC	ICT-349	**Summer Project (after 6th Semester) Report and Presentation	-	-	2
Total			**-**	**-**	**22**

*** The student shall be allocated a supervisor / guide for project work at the end of 6th semester by the School, the project shall continue into the 8th semester. In the 7th semester evaluation, the criteria for evaluation shall be conceptualization of the project work, the back-ground study / literature survey and identification of objectives and methodology to be followed for project. 40 marks evaluation for the Teachers' Continuous Evaluation / Internal Assessment shall be done by the concerned supervisor while the term end examinations of 60 marks shall be conducted by the supervisor concerned and the external examiner deputed by the Examinations Division. In the absence of the supervisor, the Dean of the school can assign the responsibility of the supervisor (for purpose of examinations) to any faculty of the school. However, the APC of the school may allow change of route from the "Regular Route" to "Internship Route" in the eighth semester, but students changing their route to "Internship Route", in the eight semester shall not be eligible for the award of the Honours degree.

*NUES: Comprehensive evaluation by the committee of teachers, constituted by the Academic Programme Committee, out of 100 marks. Summer training shall be in an industrial organization (including Information Technology organization) with the approval of the Training and Placement officer of the School. It shall be of 4-6 week duration.

**NUES: Summer Project shall be under the supervision of a faculty of the University or any other academic organization with the approval of the class incharge of the 6th semester. The student must submit the project proposal in the 6th semester, duly signed by the concerned project mentor to the class incharge of the 6th semester, before the end of classes of the 6th semester.

[1] The student is allowed to do the elective through MOOCs (Massive Open Online Courses) offered through SWAYAM / NPTEL platform. For this purpose, the student must apply to the school for doing the elective course through MOOC. Only with the approval of the DEAN, USICT, the student may attend the course. All cost for attending and examinations have to be borne by the student. Such courses shall be of 4 or more credits (but shall be accounted for as 4 credits only). The marksheet of the MOOC shall have to be submitted to the school for onward transmission to the Examinations division of the University to include in the records of examinations and count the credits accrued (as 4 credits) together with the marks. These marks shall be reflected in the marksheet of the 7th semester. The student has to seek permission for the MOOC course / paper option by the end of the 6th semester. The marksheet issued by the MOOCs authority have to be submitted by the student within 12 weeks of completion of classes of the 7th semester. Failure to do so, shall imply the student is **absent** in the allowed paper through MOOCs and shall be marked as such by the school for transfer of marks to examination division.

Note:

1. Minor Project – Report paper/course is a mandatory paper to be passed for the award of the degree.

Seventh Semester (Internship Route)#					
Group	**Code**	**Paper**	**L**	**P**	**Credits**
PC / Internship	[1]ICT-405	Internship Report – I #	-	-	14
	[1]ICT-407	Internship – I Viva Voce	-	-	4
	[1]ICT-409	Internship – I Progress Evaluation**	-	-	2
Practical/ Viva Voce					
One paper/course from ICT-401/ICT-449					
AEC	ICT-401	*Summer Training (after 6th Semester) Report and Presentation	-	-	2
AEC	ICT-449	**Summer Project (after 6th Semester) Report and Presentation	-	-	2
Total			**-**	**-**	**22**

Students are allowed to do internship in this semester, if following this route for the award of the degree. The students allowed to proceed for internship shall be required to maintain a log-book of activities performed during internship. The same has to be countersigned by the mentor at the organization where internship is completed. An internal mentor shall also be assigned by the school. The student shall continue on this route for completion of the requirements of the degree in the final semester. However, the APC of the school may allow change of route to the "Regular Route" in the eighth semester, but students changing their route from "Internship Route" to "Regular Route", in the eight semester, shall not be eligible for award of minor specialization(s) and / or Honours.

*NUES: Comprehensive evaluation by the committee of teachers, constituted by the Academic Programme Committee, out of 100 marks. Summer training shall be in an industrial organization (including Information Technology organization) with the approval of the Training and Placement officer of the School. It shall be of 4-6 week duration.

**NUES: Summer Project shall be under the supervision of a faculty of the University or any other academic organization with the approval of the class incharge of the 6th semester. The student must submit the project proposal in the 6th semester, duly signed by the concerned project mentor to the class incharge of the 6th semester, before the end of classes of the 6th semester.

*** NUES: Evaluation by a committee of teachers, constituted by the Academic Programme Committee, out of 100 marks. This exam may be conducted online as the students may be placed outside the city for internship and may not be able to attend in the physical mode.

Internship Viva Voce: Evaluation shall be conducted of 40 marks (Teachers' continuous evaluation / internal assessment) by the mentor (internal and/or external). And, 60 marks by a bench of the internal mentor and the external examiner deputed by examinations division (COE), for a total of 100 marks. This exam may be conducted online as the students may be placed outside the city for internship and may not be able to attend

in the physical mode.

[1]The credits for these papers are mandatorily required to be earned by the student for the award of the degree through this route.

Seventh Semester (Research Route)#					
Group	**Code**	**Paper**	**L**	**P**	**Credits**
PC / Internship	[1]ICT-411	Research Work Report – I #	-	-	14
	[1]ICT-413	Research Work – I Viva Voce	-	-	4
	[1]ICT-415	Research Work – I Progress Evaluation**	-	-	2
Practical/ Viva Voce					
Practical/ Viva Voce					
One paper/course from ICT-401/ICT-449					
AEC	ICT-401	*Summer Training (after 6th Semester) Report and Presentation	-	-	2
AEC	ICT-449	**Summer Project (after 6th Semester) Report and Presentation	-	-	2
Total			**-**	**-**	**22**

Students are allowed to do academic research in this semester, if following this route for the award of the degree. The students allowed to proceed for this route shall be required to submit a report (ICT461). The report has to be countersigned by the mentor concerned. Marks out of 40 have to awarded by the mentor (on a performa to be provided by the school) and submitted confidentially to the school (this may be done through email). The same has to be countersigned by the mentor at the organization where internship is completed. The format of the report shall be specified by the school. The student shall continue on this route for completion of the requirements of the degree in the final semester. However, the APC of the school may allow change of route to the "Regular Route" in the eighth semester, but students changing their route from "Research Route" to "Regular Route", in the eight semester, shall not be eligible for award of minor specialization(s) minor specialization(s) and / or Honours. The research route is to be allowed only to students who have no "fail" paper till 6th semester, that is, all papers upto and including 6th semester have been passed by the student and after 6th semester the student has a CGPA of 7.5 or more.

*NUES: Comprehensive evaluation by the committee of teachers, constituted by the Academic Programme Committee, out of 100 marks. Summer training shall be in an industrial organization (including Information Technology organization) with the approval of the Training and Placement officer of the School. It shall be of 4-6 week duration.
**NUES: Summer Project shall be under the supervision of a faculty of the University or any other academic organization with the approval of the class incharge of the 6th semester. The student must submit the project proposal in the 6th semester, duly signed by the concerned project mentor to the class incharge of the 6th semester, before the end of classes of the 6th semester.

***NUES: Evaluation by the committee of teachers, constituted by the Academic Programme Committee, out of 100 marks..

[1]The credits for these papers are mandatorily required to be earned by the student for the award of the degree through this route.

Eighth Semester					
Group	**Code**	**Paper**	**L**	**P**	**Credits**
Regular Route					
PC / Project	[1]ICT-402	Major Project – Report	-	-	16
	[1]ICT-404	Major Project Viva Voce	-	-	4
	[1]ICT-406	Major Project Progress Evaluation*	-	-	2
Internship Route					
PC / Internship	[1]ICT-408	Internship Report – II	-	-	16
	[1]ICT-410	Internship Viva Voce	-	-	4
	[1]ICT-412	Internship Progress Evaluation*	-	-	2
Research Route					
PC / Internship	[1]ICT-414	Thesis**	-	-	16
	[1]ICT-416	Internship Viva Voce	-	-	4
	[1]ICT-418	Internship Progress Evaluation*	-	-	2
Total			**-**	**-**	**22**

Note: The student continues with the degree route as completed in the seventh semester. However, the APC of the school may allow changes within the scope of this document.

*NUES: Comprehensive evaluation by the committee of teachers, constituted by the Academic Programme Committee, out of 100.

** Submission of the thesis is to be allowed only if a paper has been accepted / published in a Scopus /Web of Science indexed conference / journal.

In the absence of the supervisor, the Dean of the School can assign the responsibility of the supervisor to any faculty of the school.

[1]The credits for these papers are mandatorily required to be earned by the student for the award of the degree through this route.

Regulation for Implementation

This regulation shall apply only to the Bachelor of Technology part of the Bachelor of Technology / Master of Technology (dual Degree Programme) in **Computer Science and Engineering – Artificial Intelligence** programme offered at University School of Information Communication and Technology. This program shall not be offered at affiliated institutions of the University. This regulation is to be read together with the rest of this document.

A. Guidelines for Electives

A subset of the electives in the list of electives shall be chosen by the Academic Programme Committee (APC) of the school to be offered to students depending on the availability of faculty and other academic resources and only from this subset an elective shall be allowed to be studied by a group of students if and only if at least one third of the discipline intake of that particular admission year desire to study a particular paper / course.
The elective papers shall be allowed to be taken / studied by the students, by the APC of the School, keeping in view that two papers (with separate paper code) studied by the student should not have a substantial overlap. All papers studied by the student should be substantially distinct in content.

B. Credits per Academic Year

The credits offered to a student in a particular academic year of study shall be 44 credits.

C. Detailed Syllabus

The detailed syllabus of the courses / papers is present in the Appendix A.

D. Provision for Lateral Entry of Students

Lateral entry of students shall be allowed as per University rules, regulations and policy. These students shall be admitted in the second year of the degree programme. Such students shall study the papers / courses offered from the second year onwards only. Only the credits earned for the papers of second to fourth year of the programme of study shall be considered for the award of the degree to the lateral entry students. In addition to these papers/course of second to fourth year of study, these students have to study two papers / courses, namely (first time offered in the 3rd semester):

Paper Code	Paper Name	L/P
BC-001	Bridge Course in Mathematics	4
BC-002	Bridge Course in Programming in C and Data Structures	4

Implementation Rules for Bridge Courses:

1. These papers have to be qualified by the students. The students shall study the bridge course in self-study mode under the mentorship of the mentors.
2. For these papers examination shall be conducted by the concerned subject teacher / mentor as NUES, the same shall be transferred to Examination Division of the University.
3. The degree to be awarded to the student only subject to the acquiring qualifying grade/marks in the bridge courses and the minimum credits in the regular courses of the scheme of study as prescribed.
4. These Courses shall be qualifying in nature; they shall not be included for calculation of CGPA. The qualifying marks shall be 40 marks in each paper.
5. A separate marksheet will be issued by the Examination Division of the University for the Bridge Course.
6. Students shall study the paper in the self study mode. A Mentor shall be allocated by the academic programme committee of the School to groups of lateral entry students. Mentors shall interact with the students to clarify, guide, assignments (given by the mentor) and evaluation of the course.

E. Promotion to the Master of Technology part of the degree

Only after qualifying for the award of the degree of Bachelor of Technology, the student may be allowed to proceed for the Master in Technology part of the Bachelor / Master of Technology (Dual Degree). The Bachelor of Technology degree shall be awarded only after the fulfilment of all requirements of the Scheme and Syllabus of Examinations of the Bachelor of Technology part of the dual degree programme and the applicable Ordinance.

F. Scheme and Syllabus of the Master of Technology part of the Dual Degree Programme

The scheme and syllabi of the Master of Technology part of the Bachelor / Master of Technology (Dual Degree) shall be notified separately. This document pertains to the Bachelor of Technology part of the Bachelor / Master of Technology (Dual Degree) programme only.

G. Members of APC

Teachers of other Schools, as and when deputed by their school, for teaching the students enrolled in programmes offered by the University School of Information, Communication and Technology (USICT) shall be a part of the Academic Programme Committee of the school. Such teachers, for all academic matters, including teaching, teachers' continuous evaluation, term end examinations etc. shall be governed by the decisions of the APC of USICT. Similarly, the guest faculty, the visiting faculty and the contract / Ad Hoc faculty as and when deputed to teach students of USICT shall form a part of APC of USICT.

H. Medium of Instructions

The medium of instructions and examinations shall be English.

I. Power to Remove Difficulty

In case of difference of opinion in the interpretation of any statement or clause of this regulation or the scheme and syllabus, the decision of the Dean of the University School of Information, Communication and Technology, shall be final.

Regulation for Award of the Degree

This regulation shall apply only to the Bachelor of Technology part of the Bachelor of Technology / Master of Technology (dual Degree Programme) in Computer Science and Engineering programme – Artificial Intelligence, offered at University School of Information Communication and Technology. This regulation is to be read together with the rest of this document.

1. (a) The examinations, attendance criteria to appear in examinations, promotion and award of the degree shall be governed by the Ordinance 11 of the University.
   (b) Pass marks in every paper shall be 40.
   (c) Grading System shall be as per Ordinance 11 of the University.

2. **Minimum duration** of the Bachelor of Technology part of the Bachelor / Master of Technology (Dual Degree) programme shall be 4 years (N=4 years) (8 semesters) for the students admitted in the 1st year and 1st semester of the degree programme.

3. Lateral entry students shall be admitted in the 2nd year and 3rd semester of the degree programme (effectively in the batch admitted in the first year in the previous academic session and shall be deemed to have been exempted from the courses / papers of the first year of the degree programme). No exemption certificate shall be issued in any case.
   A specific lateral entry students' minimum exit time/year shall be the same as for the batch in which he/she is admitted as a lateral entry student in the 2nd year.

4. **Maximum duration** of the Bachelor of Technology part of the Bachelor / Master of Technology (Dual Degree) programme shall be 7 years (N+3 years). After completion of N+3 years of study, no extension shall be given to the student for completing the requirements of the degree and the admission of the student shall stand cancelled. That is, if the student does not complete the requirements for the award of the degree in this period, the admission of the student shall be cancelled. That is, if a batch of regular students is admitted in the 1st semester / 1st year, in the Academic session 2025-26, then the batch period of study finishes in the Academic Session 2032-33. The maximum period of study for a lateral entry student shall end together with the regular batch. That is, if a lateral entry student is admitted in the Academic Session 2026-27, in the 3rd semester /2nd year, his/her last allowed year of study shall be Academic Session 2032-33.

5. After the 6th semester, and before the commencement of the 7th semester, the student has to choose from one of the following routes for the award of the degree:
   a. Regular Route
   b. Internship Route
   c. Research Route

   Three routes for award of the final degree are defined in Clause 8 below. Only for the **Regular Route for the Award of the Degree**, the Honours degree may be awarded subject to fulfilment of all conditions specified in this regulation. Thus, the students that opt for the Honours, can only take this route for the award of the degree.

6. (a) To earn an Honours degree, the student may enrol for 20 credits or more (over and above the 176 credits offered in the classroom) through SWAYAM / NPTEL MOOCs platform. This point has to be read together with other points specially point / clause 8a, The acquisition of the credits should be completed before the 15th of the July of the admission year plus 4 years. That is, if a student is admitted in the year X, then these credits must be acquired through MOOCs by 15th July of the year (X+4), no extra duration or time shall be allocated for this purpose.
   (b) Honours in the degree shall be awarded if and only if at least 20 credits are acquired through MOOCs. To obtain Honours in the programme, the student must apply to the School about the same before the commencement of the 5th semester. The school shall inform the list of such students to the Examination Division of the University within 4 weeks of the commencement of the 5th semester for the batch of students.
   (c) The specific courses through MOOCs shall be registered by the student only after approval by the Academic Programme Committee (APC) of the School. The APC shall approve the course if it is not already studied by the student or the student shall not study it in future and adds value to the major area of specialization (which is the degree). The papers for which the student desires to appear for Honours through MOOCs, all papers results shall be submitted by the student to the school for onwards transfer to Examination Division of the University, to be taken on record of the University. The results of these papers shall be a part of the records of the examinations of the students. The records shall be submitted by the student to the school, then transferred to the Examinations division, shall be notified by the examinations division of the University, and a separate marksheet shall be issued

by the Examinations divisions.

(d) The cost of taking the MOOC course is to be borne by the concerned student. Such courses shall be reflected as additional courses / papers for the student.

(e) If a student acquires less than 20 credits through MOOCs, following the mechanism specified, then also the results of these papers shall be taken on record as specified above, though no Honours degree shall be awarded.

(f) The papers through MOOCs for Honours degree shall not be a part of the set of the papers over which the SGPA / CGPA of the student shall be calculated.

(g) The papers through MOOCs for Honours degree shall be additional papers studied by the students and are to be taken into account only for award of Honours in the degree programme, if 20 credits are earned through MOOCs as approved by APC, by a student. See Clause 8 also.

(h) No Honours shall be conferred if the degree requirements are not completed in the minimum duration.

(i) No Honours shall be conferred if the student is fail in any of the paper offered to the student, at the time of verifying for award of the degree. That is the Honours degree shall be conferred only on students with full credits (176).

(j) No Honours shall be conferred if the student has taken any of the interim degrees (as specified in the Table of the Clause 7.)

(k) The Honours degree shall only be awarded if the CGPA of the student is above or equal to 7.5. In addition, the student should be eligible for the award of the degree after the immediate completion of the 4th year of the batch from the year of admission. No Honours shall be conferred if the degree requirements are not completed in the minimum duration.

(l) Three routes for award of the final degree are defined in Clause 8 below. Only for the **Regular Route for the Award of the Degree**, the Honours degree may be awarded subject to fulfilment of all conditions specified in this regulation. Thus, the students that opt for the Honours can only take this route for the award of the degree.

7. **Exit After Completion of an Academic Year**:

A student may exit after completion of any of the year of study. That is, a student may take a break after any year of study, and if he/she satisfies the required conditions as per table below, then the Certificate/ Diploma/Degree to be awarded shall awarded. The student may re-join later with the provisio that the maximum time allowed is same as clause 4 above. The interim awards shall be as follows (***for Regular Students admitted in the first year/first semester***):

On Completion of	Be Awarded	Condition to be Satisfied	Remarks
1st Year	Undergraduate Certificate in Computer Science and Engineering	Has earned at least 40 credits in the 1st year and provided they have undergone a minimum skill-enhancement course(s) equivalent to at least 4 credits or 4 weeks of training over and above the 40 credits earned in the first year. The training has to be completed after the completion of the first year examinations. All mandatory papers of the first year have to be passed.*	Shall not be allowed to reappear in any failed paper of 1st year on re-joining% in the second year to complete the requirement for the award of the degree. (Interim Degree)
2nd Year	Undergraduate Diploma in Computer Science and Engineering	Has earned at least 80 credits upto and including the 2nd year and provided they have undergone a minimum skill-enhancement course(s) equivalent to at least 4 credits or 4 weeks of training over and above the 80 credits earned upto and	Shall not be allowed to reappear in any failed paper studied till 2nd year on re-joining% in the third year to complete the requirement for the award of the degree. (Interim Degree)

		including the second year. The training has to be completed after the completion of the second year examinations. All mandatory papers upto and including the second year have to be passed.*	
3rd Year	Bachelor of Science in Computer Science in Engineering – Artificial Intelligence	Has earned at least 120 credits upto and including the 3rd year from the subjects / courses / papers offered.$	This is a three year degree (Interim Degree). Shall not be allowed to reappear in any failed paper studied till 3rd year on re-joining% in the fourth year to complete the requirement for the award of the final 4-year degree.
4th Year	See Clause 8	Has earned at least 160 credits upto and including the 4th year from the subjects / courses / papers offered	(Final Degree)

* The students desirous of taking the exit after 1st or 2nd year, shall apply to the school (University School of Information, Communication and Technology) before the completion of examinations of 1st semester or 3rd semester, respectively. The students shall specify the specific skill based course(s) / training of at least 4 weeks, that they are desirous of completing for taking the exit route. All such cases shall be put before a sub-committee of the Academic Programme Committee (APC) of the programme of study by the Dean, USICT. The APC sub-committee meeting in this regard shall be chaired by the Dean of the School and three faculty deputed by the APC shall be the members. The student(s) may be asked to appear before this sub-committee. The sub-committee may change the course(s) or the training programme to be completed by the student, as proposed by the student. The sub-committee should ensure that the course(s) opted by the student are relevant skill based course(s) and shall not be (majorly) part of any course taught or to be taught as a part of the complete curricula of the programme of study. The student shall proceed to study the course(s) / training as approved by this committee. The list of such students shall be forwarded by the school before the commencement of the examinations of the 2nd or the 4th semester as applicable, to the Controller of Examinations of the University, together with the minutes of the sub-committee.

Also, if such a student, who is allowed to take the exit route, but does not desire to take it, and wants to continue of the subsequent year of study, such students shall be allowed. However, the course(s) / training, if completed, shall not be taken on record of examinations.

Also, all expenses related to these additional course(s) / training shall be borne by the concerned student. The student must submit the certificate of successful completion of such course(s) / training by 31st July of the academic session after which the exit is desired. The school shall submit the complete documentation for these cases to the Examinations Division of the University on or before 31st August of the same year.

Also, the credits awarded by the concerned authority from where the student pursues the course(s) / training for completing the requirements of the exit shall not be recorded by the examinations division of the University. Only the fact of successful completion of the course(s) / training shall be recorded by the Examinations Division of the University.

$The student desirous of taking the interim degree (exit) after the 3rd year must apply to the concerned institution before the commencement of examinations of the 6th semester. The concerned institution must forward the list of all such cases to the Controller of Examinations of the University before beginning of classes of the 7th semester.

%The re-joining is to be allowed if and only if sufficient numbers of years of study are still remaining as per clause 4, for completion of the requirement of the award of the final degree (after 4th year of study as per scheme and syllabi specified in this document).

Similarly, for Lateral Students admitted in the second year/third semester, the interim awards shall be as follows (the condition of time allowed for re-joining remains as per clause 4 above , applicable to lateral entry students), and shall be as follows:

On Completion of	Be Awarded	Condition to be Satisfied	Remarks
2nd Year	Undergraduate Diploma in Computer Science and Engineering	Has earned at least 40 credits in the 2nd year from the subjects / courses / papers offered and provided they have undergone a minimum skill-enhancement course(s) equivalent to at least 4 credits or 4	Shall not be allowed to reappear in any failed paper studied till 2nd year on re-joining%% in the third year to complete the requirement for the award of the degree. (Interim Degree)

		weeks of training over and above the 40 credits earned in the second year. The training has to be completed after the completion of the second year examinations. All mandatory papers of the first year have to be passed.**	
3rd Year	Bachelor of Science in Computer Science and Engineering – Artificial Intelligence	Has earned at least 80 credits upto and including the 3rd year from the subjects / courses / papers offered.$$	This is an Interim Degree. Shall not be allowed to reappear in any failed paper studied till 3rd year on re-joining%% in the fourth year to complete the requirement for the award of the final 4-year degree.
4th Year	See Clause 8	Has earned at least 120 credits upto and including the 4th year from the subjects / courses / papers offered	(Final Degree)

** The students desirous of taking the exit after 2nd year (of the curriculum), shall apply to the school before the completion of examinations of 3rd semester. The students shall specify the specific skill based course(s) / training of at least 4 weeks, that they are desirous of completing for taking the exit route. All such cases shall be put before a sub-committee of the Academic Programme Committee (APC) of the programme of study by the Dean, USICT. The APC sub-committee meeting in this regard shall be chaired by the Dean of the School and three faculty deputed by the APC shall be the members. The student(s) may be asked to appear before this sub-committee. The sub-committee may change the course(s) or the training programme to be completed by the student, as proposed by the student. The sub-committee should ensure that the course(s) opted by the student are relevant skill based course(s) and shall not be (majorly) part of any course taught or to be taught as a part of the complete curricula of the programme of study. The student shall proceed to study the course(s) / training as approved by this committee. The list of such students shall be forwarded by the school before the commencement of the examinations of the 4th semester as applicable, to the Controller of Examinations of the University, together with the minutes of the sub-committee.
Also, if such a student, who is allowed to take the exit route, but does not desire to take it, and wants to continue of the subsequent year of study, such students shall be allowed. However, the course(s) / training, if completed, shall not be taken on record of examinations.
Also, all expenses related to these additional course(s) / training shall be borne by the concerned student. The student must submit the certificate of successful completion of such course(s) / training by 31st July of the academic session after which the exit is desired. The concerned institution shall submit the complete documentation for these cases to the Examinations Division of the University on or before 31st August of the same year.
Also, the credits awarded by the concerned authority from where the student pursues the course(s) / training for completing the requirements of the exit shall not be recorded by the examinations division of the University. Only the fact of successful completion of the course(s) / training shall be recorded by the Examinations Division of the University.
$$The student desirous of taking the interim degree (exit) after the 3rd year must apply to the concerned institution before the commencement of examinations of the 6th semester. The concerned institution must forward the list of all such cases to the Controller of Examinations of the University before beginning of classes of the 7th semester.
%%The re-joining is to be allowed if and only if sufficient numbers of years of study are still remaining as per clause 4, for completion of the requirement of the award of the final degree (after 4th year of study as per scheme and syllabi specified in this document).

Thus, the **minimum credit** for the award of the final degree is 160 (for regular students) and 120 (for lateral entry students). The student has to acquire at least 160 credits for regular students (120 for lateral entry students), other than the credits for Honours (if any), to be considered for the award of the final degree

And, the **maximum credit** for the award of the final degree is 176 (for regular students) and 132 (for lateral entry students). The student has to study and appear in examinations for at least 176 credits for regular students (132 for lateral entry students), other than the credits for Honours (if any).

8. The following degree route can be taken by a student:
   - **a. Regular Route**
     1. The student acquires at least 160 credits (as per the scheme of examinations for this route).
     2. Has cleared all mandatory papers to be passed, offered to the students.
     3. The degree nomenclature of the degree shall be as: "**Bachelor of Technology in Computer Science and Engineering – Artificial Intelligence**"; if criteria / point 6 is not satisfied for Honours. Otherwise,

if criteria / point 6 is met, then the degrees shall be an Honours degree and the nomenclature shall be as: "**Bachelor of Technology in Computer Science and Engineering – Artificial Intelligence (Honours)**";

b. **Internship Route**
   1. The student acquires at least 160 credits (as per the scheme of examinations for this route).
   2. Has cleared all mandatory papers to be passed, offered to the students..
   3. The degree nomenclature of the degree shall be as: "**Bachelor of Technology in Computer Science and Engineering – Artificial Intelligence**"

c. **Research Route**
   1. The student acquires at least 160 credits (as per the scheme of examinations for this route).
   2. Has cleared all mandatory papers to be passed, offered to the students..
   3. The degree nomenclature of the degree shall be as: "**Bachelor of Technology in Computer Science and Engineering – Artificial Intelligence with Research**"

9. In case of difference of opinion in the interpretation of any statement or clause of this regulation or the scheme and syllabus, the decision of the Dean of the University School of Information, Communication and Technology, shall be final.
10. This regulation has to be read together with the rest of this document.