MEMORANDUM OF AGREEMENT

THIS MEMORANDUM OF AGREEMENT is made this 29TH day of NOVEMBER 2013 BETWEEN "THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS (HQ)", having its Office at 2, Institutional Area, Lodhi Road New Delhi- 110003, hereinafter referred to as "IETE" or "The Party of the First Part" (which term or expression shall unless excluded by or repugnant to the context be deemed to include its successors-in-office, administrators, authorized representatives) of the FIRST PART, being represented by its President, Dr. S. Pal, of The Institution of Electronics and Telecommunication Engineers, having office at 2, Institutional Area, Lodhi Road, New Delhi- 110003

AND

TECHNO INDIA GROUP, having its Corporate Office & Centre of Excellence at EM-4, Sector-V, Salt Lake City, Kolkata-700091, hereinafter referred to as "TIG" or "The Party of the Second Part" (which term or expression shall unless excluded by or repugnant to the context be deemed to include its successors-in-office, administrators, authorized representatives) of the SECOND PART being represented by its Authorized Representative, Sri Goutam Roychowdhury, the Chairman.

TIG shall recognize the DIPIETE and GradIETE (AMIE) courses for further study at Techno India University / Techno Global University, and other associated/ upcoming Universities of TIG and an approval letter of the respective university in this regard shall be issued to IETE. TIG shall also allow selected IETE students through credit transfer as per national and/or international norms for getting admission in the associated Universities the following different programs to be operated in full time / part time mode (evening classes/ weekend classes/ summer and winter session) -

I. B.Tech
II. M.Tech
III. M.Phil
IV. Ph.D
V. MBA
VI. Any other integrated or sole programme as may be deemed fit by both the Parties.

ADDENDUM TO MEMORANDUM OF AGREEMENT

1) This addendum, signed on ..23.... day of Dec.2015 is supplement to the Memorandum of Agreement made between Institution of Electronics and Telecommunication Engineers, HQ New Delhi (IETE) and Techno India Group, Kolkata (TIG) on 29 Nov 2013.

TERMS & CONDITIONS:

2) This addendum is signed to set the eligibility conditions for IETE students pursuing AMIETE/DipIETE courses who are at different stages of the course to transit into the different years of TIG B. Tech/Diploma level courses through exemptions and transfer of credits as per present course structure and syllabi of IETE and TIG. The transition conditions shall be revised on mutual consent as and when there is change in course structure/syllabi of either IETE or TIG or there a change in regulatory norm / statutory provision.

3) Transition conditions for AMIETE in Electronics & Telecommunication (AMIETE-ET) to TIG B. Tech in Electronics & Communication (B. Tech ECE) are given in **Appendix-'A'** Para I, II, III and IV of this addendum, respectively for different stages of transition.

4) Transition conditions for AMIETE in Computer Science / Information Technology (AMIETE-CS/IT) to TIG B. Tech in Computer Science & Engineering (B. Tech CSE) are given in **Appendix-'B'** Para I, II, III and IV of this addendum, respectively for different stages of transition.

5) Subject equivalency structure for AMIETE in Electronics & Telecommunication (AMIETE-ET) versus TIG B. Tech in Electronics & Communication (B. Tech CSE) is given **Appendix-'C'** of this addendum.

6) Subject equivalency structure for AMIETE in Computer Science / Information Technology (AMIETE-CS/IT) versus TIG B. Tech in Computer Science & Engineering (B. Tech CSE) is given **Appendix-'D'** of this addendum.

7) Transition conditions for DipIETE in Electronics & Telecommunication (DipIETE-ET) to TIG Diploma in Electronics & Communication (Diploma ECE) are given in **Appendix-'E'** Para I, II, III and IV of this addendum, respectively for different stages of transition.

8) Transition conditions for DipIETE in Computer Science (DipIETE -CS) to TIG Diploma in Computer Science & Engineering (Diploma CSE) are given in **Appendix-'F'** Para I, II, III and IV of this addendum, respectively for different stages of transition.

9) Subject equivalency structure for DipIETE in Electronics & Telecommunication (DipIETE -ET) versus TIG Diploma in Electronics & Communication (Diploma ECE) is given **Appendix-'G'** of this addendum.

10) Subject equivalency structure for AMIETE in Computer Science (DipIETE - CS) versus TIG Diploma in Computer Science & Engineering (Diploma CSE) is given **Appendix-'H'** of this addendum.

11) The TIG shall give 40 % fee exemption to students transiting from IETE to TIG.

12) The TIG shall re-design the concise syllabi of some of the subjects which are combined.

13) The TIG shall balance the credits such that final Degree/Diploma issued to the students transiting from IETE is acceptable by all the Government/Private Universities and Organisations for the purpose of employment and higher education.

14) The TIG shall include the subjects along with their credits that the student has passed at IETE but are not the part of the TIG course structure while issuing the final marks sheet to the student.

15) The TIG shall provide placement assistant to all the students transiting from IETE to TIG, at par with the directly admitted students of TIG.

17) AMIETE students transiting into B. Tech course of TIG shall have to apply for life membership on completion of the course by paying the requisite fee applicable at that time. TIG shall ensure and confirm to IETE before awarding the degree to these students and equal number of TIG original students also to be made associate members of IETE.

IETE (AMIETE-ET) to TIU (B. Tech – ECE) Transition Scheme

I   **Passed Section – A, Part – I of AMIETE (ET) stream**

Transition into TIU B. Tech - ECE

1. Gets admission in 2nd year (3rd Semester) B. Tech - ECE

2. Will have to pass following courses of the 1st year during 2nd year

S. No.	Course Code	Course Title	To be studied in
THEORY			
a.	TIUFY-101	Career Advancement – Skill Development – I & II	3rd semester
b.	TIUFY-202	Mathematics-II	4th Semester
PRACTICAL			
a.	TIUFY-296	Programming in C Lab	3rd semester
b.	TIUFY-295	Basic Electrical Engineering Lab & Simulation	4th semester

3. Will get exemption in the following courses of 2nd & 3rd year of TIU since these have already been studied in Section–A, Part-I of IETE (AMIETE-ET)

TIU Courses		Equivalent IETE Courses	
Course code	Course Name	Sub Code	Sub Name
THEORY			
TIUECE-301	Semiconductor Devices	AE53/AE103	Electronic Devices & Circuits
TIUECE-401	Analog Electronic Circuits	AE53/AE103 AE54/AE104	Electronic Devices & Circuits Linear ICs & Digital Electronics
TIUECE-402	Digital Electronics & Logic Design	AE54/AE104	Linear ICs & Digital Electronics
TIUECE-602	Digital Signal Processing	AE77/AE121	Digital Signal Processing (Elective)
PRACTICAL			
TIUECE-391	Semiconductor Devices Lab	AE91/AE141	Analog Electronics Lab
TIUECE-491	Analog Circuits Lab	AE91/AE141	Analog Electronics Lab

4. Will get exemption in the equivalent courses as mentioned in Course Equivalency structure of AMIETE-ET VS TIU-ECE (Appendix-C) of Section – A, Part – II, if passed at IETE, even though Section-A Part-II not completed fully. The IETE will provide the passing certificate of such courses to the students.

5. The corresponding credits earned at IETE will be carried forward to TIU.

II   Passed Section – A, Part – I & II of AMIETE (ET) stream

Transition into TIU B. Tech - ECE

1. Gets admission in 3rd year (5th Semester) B. Tech - ECE

2. Will have to pass following courses of the 1st & 2nd year during 3rd and 4th year

S. No.	Course Code	Course Title	To be studied in
THEORY			
a.	TIUFY-101	Career Advancement – Skill Development – I to IV	5th Semester
b.	TIUMTH-302	Engineering Mathematics – III	5th Semester
c.	TIUECS-401	Data Structures & Algorithms through C	5th Semester
d.	TIUMTH-306	Probability and Statistics	6th Semester
PRACTICAL			
a.	TIUFY-296	Programming in C and Data Structure Lab	5th Semester
b.	TIUFY-295	Basic Electrical Engineering, Simulation & Network Theory Lab	6th Semester
c.	TIUECE-493	Measurement Lab	7th Semester

3. Will get exemption in the following courses of 3rd year of TIU since these have already been studied in Section–A, Part-I & II of IETE (AMIETE-ET)

TIU Courses		Equivalent IETE Courses	
Course code	Course Name	Sub Code	Sub Name
THEORY			
TIUECE-501	Control System	AE61/AE109	Control Engineering
TIUECE-502	Microprocessor & Microcontroller	AE66/AE108	Microprocessors & Microcontrollers

4. Will get exemption in the equivalent courses as mentioned in Course Equivalency structure of AMIETE-ET VS TIU-ECE (Appendix-C) of Section – B, Part – I, if passed at IETE, even though Section-B Part-I not completed fully. The IETE will provide the passing certificate of such courses to the students.

5. The corresponding credits earned at IETE will be carried forward to TIU.

III   Passed Section–A, Part–I & II and Section–B, Part–I of AMIETE (ET) stream

Transition into TIU B. Tech - ECE

1. Gets admission in 4th year (7th Semester) B. Tech - ECE

2. Will have to pass following courses of the 1st, 2nd & 3rd year during 4th year

S. No.	Course Code	Course Title	To be studied in
		THEORY	
a.	TIUFY-101	Career Advancement – Skill Development – I to VI	7th Semester
b.	TIUMTH-302	Engineering Mathematics – III	7th Semester
c.	TIUECS-401	Data Structures & Algorithms through C	7th Semester
d.	TIUECE-601	Digital Communication	7th Semester
e.	TIUMTH-306	Probability and Statistics	8th Semester
f.	TIUECE-602	Digital Signal Processing	8th Semester (if not studied as Elective)
g.	TIUECE-603	Computer Networking	8th Semester
		PRACTICAL	
a.	TIUFY-295 & TIUCSE-392	Basic Electrical Engineering, Simulation & Network Theory Lab	7th Semester
b.	TIUECS-491	Programming in C and Data Structure Lab	7th Semester
c.	TIUECE-493	Measurement Lab	7th Semester
d.	TIUECE-594 & 691	Analog & Digital Communication Lab	7th Semester
e.	TIUECE-591	Control System Lab	8th Semester
f.	TIUECE-593	Antenna Lab	8th Semester
g.	TIUECE-692	DSP Lab	8th Semester
h.	TIUECE-693	Computer Networking Lab	8th Semester

3. Will get exemption in the following courses of 4th year of TIU since these have already been studied in Section–A, Part–I & II and Section-B Part–I of IETE (AMIETE-ET).

TIU Courses	Equivalent IETE Courses

Course code	Course Name	Sub Code	Sub Name
THEORY			
TIUECE-704 Elective-I	TIUECE-704.1 (Telecommunication Engineering)	AE64/AE115	Telecommunication Switching Systems
	TIUECE-704.5 (Embedded Systems)	AE68/AE117	Embedded Systems Design

4. Will get exemption in the equivalent courses as mentioned in Course Equivalency structure of AMIETE-ET VS TIU-ECE (Appendix-C) of Section – B, Part – II, if passed at IETE, even though Section-B Part-II not completed fully. The IETE will provide the passing certificate of such courses to the students.

5. The corresponding credits earned at IETE will be carried forward to TIU.

IV   Passed Section – A & B of AMIETE (ET) Completely

Transition into TIU B. Tech - ECE

Gets additional B. Tech Degree in Electronics & Communication from TIU after doing one semester (06 Months) bridge course comprising following course:

S. No.	Course Code	Course Title
THEORY		
a.	TIUFY-101	Career Advancement – Skill Development – I to VIII
b.	TIUMTH-302	Engineering Mathematics – III
c.	TIUMTH-306	Probability and Statistics
d.	TIUECS-401	Data Structures & Algorithms through C
e.	TIUECE-602	Digital Signal Processing (if not studied as Elective)
f.	TIUECE-801	Advanced Communication (if not studied as Elective)
g.	TIUECE-802	VLSI Design (if not studied as Elective)
PRACTICAL		
a.	TIUFY-295 & TIUCSE-392	Basic Electrical Engineering, Simulation & Network Theory Lab
b.	TIUFY-206 & TIUECS-491	Programming in C and Data Structure Lab
c.	TIUECE-493	Measurement Lab
d.	TIUECE-692	DSP & Control System Lab
e.	TIUECE-693	Computer Networking Lab
f.	TIUECE-791 & 593	RF, Microwave & Antenna Lab
g.	TIUECE-891	VLSI Design Lab
SESSIONAL		
a.	TIUFY-181	Entrepreneurship Skill Development – I to VIII

IETE (AMIETE-CS/IT) to TIU (B.Tech – CSE) Transition Scheme

I   **Passed Section – A, Part – I of AMIETE (CS/IT) stream**

Transition into TIU B.Tech – CSE

1. Gets admission in 2nd year (3rd Semester) B. Tech - CSE

2. Will have to pass following courses of the 1st year during 2nd, 3rd and 4th year

S. No.	Course Code	Course Title	To be studied in
		THEORY	
a.	TIUFY-101	Career Advancement – Skill Development – I & II	3rd Semester
b.	TIUFY-202	Mathematics-II	4th Semester

3. Will get exemption in the following courses of 2nd & 3rd year of TIU since these have already been studied in Section–A, Part-I of IETE (AMIETE-CS)

TIU Courses		Equivalent IETE Courses	
Course code	Course Name	Sub Code	Sub Name
		THEORY	
TIUECE-304	Switching Circuits And Logic Design	AC53&54/AT53&54/AC103/AT103	Analog & Digital Electronics **
TIUCSE-305	Data Structure & Algorithms	AC52/AT52/AC104/AT104	Data Structures with C & C++
TIUCSE -306	Computer Organization & Architecture	AC58/AT58/AC106/AT106	Computer Organization
TIUCSE-404	Object Oriented Programming and Design-I	AC55/AT55/AC105/AT105	Object Oriented Programming with C++
TIUCSE-505	Object Oriented Programming and Design-II	AC55/AT55/AC105/AT105	Object Oriented Programming with C++

4. Will get exemption in the equivalent courses as mentioned in Course Equivalency structure of AMIETE-CS/IT VS TIU-CSE (Appendix-D) of Section – A, Part – II, if passed at IETE, even though Section-A Part-II not completed fully. The IETE will provide the passing certificate of such courses to the students.

5. The corresponding credits earned at IETE will be carried forward to TIU.

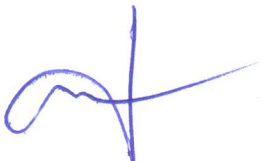## II   Passed Section – A, Part – I & II of AMIETE (CS/IT) stream

Transition into TIU B. Tech – CSE

1. Gets admission in 3rd year (5th Semester) B. Tech - CSE

2. Will have to pass following courses of the 1st & 2nd year during 3rd and 4th year

S. No.	Course Code	Course Title	To be studied in
		THEORY	
a.	TIUFY-101	Career Advancement – Skill Development – I to IV	5th Semester
b.	TIUMTH-302	Discrete Structure	5th Semester
c.	TIUCSE-405	Design and Analysis of Algorithms	5th Semester
d.	TIUMTH-402	Computer Based Statistical And Numerical Techniques	6th Semester
e.	TIUCSE-406	Automata Theory and Logic	8th Semester
		PRACTICAL	
a.	TIUCSE-396 & TIUECE-493	Computer Organization & Architecture and Microprocessor and Microcontroller Lab	5th Semester
b.	TIUCSE-494 & 595	Object Oriented Programming And Design-I & II Lab	5th Semester
c.	TIUCSE -495	Design and Analysis of Algorithms Lab	5th Semester
d.	TIUMTH-492	Computer Based Statistical And Numerical Techniques Lab	6th Semester

3. Will get exemption in the following courses of 2nd & 3rd year of TIU since these have already been studied in Section–A, Part-I & II of IETE (AMIETE-CS)

TIU Courses		Equivalent IETE Courses	
Course code	Course Name	Sub Code	Sub Name
		THEORY	
TIUCSE-502	Database Management Systems	AC61/AT61/AC112/AT112	Database Management

			Systems
TIUCSE-503	Operating Systems	AC59/AT59/AC110/AT110	Operating Systems & Systems Software
TIUCSE-504	Computer Graphics and Multimedia Systems	AC60/AT60/AC111/AT111	Computer Graphics &Visualization
TIUCSE-505	Object Oriented Programming and Design-II	AC55/AT55/AC105/AT105	Object Oriented Programming with C++
PRACTICAL			
TIUCSE–592	Database Management System Lab	AC92/AT92/AC142/AT142	DBMS Lab

4. Will get exemption in the equivalent courses as mentioned in Course Equivalency structure of AMIETE-CS/IT VS TIU-CSE (Appendix-D) of Section – B, Part – I, if passed at IETE, even though Section-B Part-I not completed fully. The IETE will provide the passing certificate of such courses to the students.

5. The corresponding credits earned at IETE will be carried forward to TIU.

III   Passed Section–A, Part–I & II and Section–B, Part–I of AMIETE (CS/IT)

Transition into TIU B. Tech – CSE

1. Gets admission in 4th (7th Semester) year B. Tech - CSE

2. Will have to pass following courses of the 1st, 2nd & 3rd year during 4th year

S. No.	Course Code	Course Title	To be studied in
THEORY			
a.	TIUFY-101	Career Advancement – Skill Development – I to VI	7th semester
b.	TIUCSE-506	Compiler Design	7th semester
c.	TIUCSE-605	Web Technology	7th semester
d.	TIUMTH-402	Computer Based Statistical And Numerical Techniques	8th semester
e.	TIUCSE-406	Automata Theory and Logic	8th semester
f.	TIUCSE-604	Computer Networks	8th semester
PRACTICAL			
a.	TIUCSE-396	Computer Organization & Architecture	7th semester

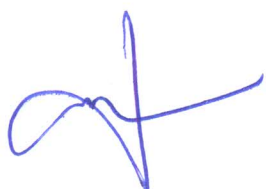|	& TIUECE-493	and Microprocessor and Microcontroller Lab	
b.	TIUCSE-494 & 595	Object Oriented Programming And Design-I & II Lab	7th semester
c.	TIUCSE-593	Operating Systems Lab	7th semester
d.	TIUCSE-594	Computer Graphics and Multimedia Systems Lab	7th semester
e.	TIUCSE-695	Web Technology Lab	7th semester
f.	TIUMTH-492	Computer Based Statistical And Numerical Techniques Lab	8th semester
g.	TIUCSE-692	Operation Research and Optimization Techniques Lab	8th semester
h.	TIUCSE-693	Software Engineering Lab	8th semester
i.	TIUECE-694	Computer Networks and System Administration Lab	8th semester

3. Will get exemption in the equivalent courses as mentioned in Course Equivalency structure of AMIETE-CS/IT VS TIU-CSE (Appendix-D) of Section – B, Part – II, if passed at IETE, even though Section-B Part-II not completed fully. The IETE will provide the passing certificate of such courses to the students.

4. The corresponding credits earned at IETE will be carried forward to TIU.

IV   Passed Section – A & B of AMIETE – CS completely

Transition into TIU B. Tech – CSE
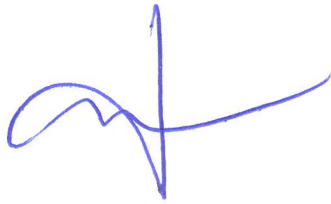
Gets additional B. Tech Degree in Computer Science & Engineering from TIU after doing one semester (06 Months) bridge course comprising following course:

S. No.	Course Code	Course Title
		THEORY
a.	TIUFY-101	Career Advancement – Skill Development – I to VIII
b.	TIUMTH-402	Computer Based Statistical And Numerical Techniques
c.	TIUCSE-605	Web Technology
d.	TIUHU-802	Engineering Economics and Financial Accounting
e.	TIUHU-803	Managerial Ethics and Corporate Governance
f.	TIUCSE-804	Elective –IV
		PRACTICAL
a.	TIUCSE-396	Computer Organization &Architecture Lab
b.	TIUMTH-492	Computer Based Statistical And Numerical Techniques Lab
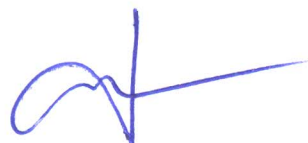
c.	TIUCSE-593	Operating Systems Lab
d.	TIUCSE-594	Computer Graphics and Multimedia Systems Lab
e.	TIUCSE-692	Operation Research and Optimization Techniques Lab
f.	TIUCSE-693	Software Engineering Lab
g.	TIUECE-694	Computer Networks and System Administration Lab
h.	TIUCSE-695	Web Technology Lab
i.	TIUCSE-793	Artificial Intelligence Lab
SESSIONAL		
a.	TIUFY-181	Entrepreneurship Skill Development – I to VIII

Course Equivalency

AMIETE –ET Vs TIU - B. Tech - ECE

AMIETE - ET			TIU - B. Tech - ECE	
S. No.	Sub Code	Sub Title	Sub Code	Sub Title
1	AE51/ AE101	Engineering Mathematics-I	TIUFY-103	Mathematics – I
2	AE102	Computer Concepts & C Programming	TIUFY-105, TIUFY-206	IT Tools and Applications , Problem Solving and Programming Using C
3	AE53/ AE103	Electronic Devices & Circuits	TIUFY-205, TIUECE-301, TIUECE-402	Basic Electrical and Electronics Engineering, Semiconductor Devices, Digital Electronics & Logic Design
4	AE54/ AE104	Linear ICs & Digital Electronics	TIUECE-402	Digital Electronics & Logic Design
5	AE55/ AE105	Principles of Electrical Engineering	TIUFY-205	Basic Electrical and Electronics Engineering
6	AE58/ AE106	Materials & Processes		
7	AE141	Analog Electronics Lab	TIUECE-391	Semiconductor Devices Lab
8	AE56/ AE107	Engineering Mathematics-II	TIUFY-202	Mathematics –II
9	AE66/ AE108	Microprocessors & Microcontrollers	TIUECE-502	Microprocessor & Microcontroller
10	AE61/ AE109	Control Engineering	TIUECE-501	Control System
11	AE59/ AE110	Circuit Theory & Design	TIUECE-302	Network Theory
12	AE60/ AE111	Instrumentation & Measurements	TIUECE-404	Electronic Measurement & Instrumentation
13	AE57/ AE112	Signals & Systems	TIUECE-403	Signals &Systems
14	AE142	Digital Electronic Lab	TIUECE-492	Digital Electronics Lab
15	AE137	Communication Skills & Technical Writing (Oral)	TIUFY-102	English For Communication
16	AE138	Communication Skills & Technical Writing (Written)	TIUFY-102	English For Communication
17	AE62/ AE113	Operations Research & Engineering Management	TIUECE-605	Industrial Management
18	AE63/ AE114	Electromagnetic & Radiation Systems	TIUECE-504	EM Theory &Antenna

19	AE64/ AE115	Telecommunication Switching Systems	TIUECE-704.1	Telecommunication Engineering
20	AE65/ AE116	Analog Communication	TIUECE-505	Analog Communication
21	AE68/ AE117	Embedded Systems Design	TIUECE-704.5	Embedded Systems
22		Elective-I(From Group A)		
23	AE143	μP & C Programming Lab	TIUFY-296, TIUECE-592	Programming in C Lab, Microprocessor & Microcontroller Lab
24	AE67/ AE118	Digital Communication	TIUECE-601	Digital Communication
25	AE71/ AE119	Data Communication & Computer networks	TIUECE-603	Computer Networking
26	AE72/ AE120	Microwave Theory & Techniques	TIUECE-701	RF & Microwave Engineering
27		Elective –II (from Group B)		
28		Elective –III (from Group C)		
29	AE94/ AE144	Analog & Digital Communications Lab	TIUECE-594, TIUECE-691	Analog Communication Lab , Digital Communication Lab
30	AE69/ AE135	Project Work	TIUECE-782 TIUECE-882	Final Year Project , Final Year Project
31	AE70/ AE136	Seminar	TIUECE-783 TIUECE-883	Seminar , Seminar
32	AE77/ AE121	Digital Signal Processing	TIUECE-602	Digital Signal Processing
33	AE74/ AE122	VLSI Design	TIUECE-802	VLSI Design
34	AE123	Power Electronics	TIUECE-703	Power Electronics
35	AE124	Operating Systems	TIUECE-70.4	Operating Systems
36	AE73/ AE125	Information Theory & Coding		
37	AE78/ AE126	Radar & Navigational Aids		
38	AE127	Wireless & Mobile Systems		
39	AE128	Internet Applications		
40	AE129	Cyber Crimes & IPR		
41	AE75/ AE130	Optoelectronics & Communication	TIUECE-702	Optoelectronic Devices Circuits
42	AE131	Advanced Communication Systems	TIUECE-801	Advanced Communication
43	AE132	Multimedia Systems		
44	AE133	DSP Algorithms and Architecture		
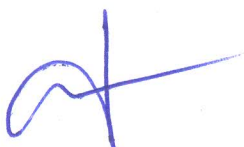
Course Equivalency
AMIETE –CS/IT Vs TIU – B. Tech - CSE

S. N o	AMIETE - CS/IT		TIU – B. Tech – CSE	
	Sub Code	**Sub Title**	**Sub Code**	**Sub Title**
1	AC51/AT51/AC 101/AT101	Engineering Mathematics-I	TIUFY-101	Mathematics – I
2	AC52/AC102	Computer Concepts & C Programming	TIUFY-105, TIUFY-206	IT Tools and Applications , Problem Solving and Programming Using C
3	AC53/AC103	Analog & Digital Electronics	TIUFY-205, TIUECE-304	Basic Electrical and Electronics Engineering, Switching Circuits And Logic Design
4	AC52/AC104	Data Structures with C & C++	TIUCSE-305	Data Structure & Algorithms
5	AC55/AT55/AC 105/AT105	Object Oriented Programming with C++	TIUCSE-404, TIUCSE-505	Object Oriented Programming and Design-I , Object Oriented Programming and Design-II
6	AC58/AT58/AC 106/AT106	Computer Organization	TIUCSE -306	Computer Organization & Architecture
7	AC91/AT91/AC 141/AT141	Data Structures with C & C++ Lab	TIUCSE-395	Data Structure & Algorithm Lab
8	AC56/AT56/AC 107/AT107	Engineering Mathematics-II	TIUFY-202	Mathematics-II
9	AC66/AT66/AC 108/AT108	Microprocessors & Microcontrollers	TIUECE-403	Microprocessor and Microcontroller
10	AC109	UNIX & Shell Programming		
11	AC59/AT59/AC 110/AT110	Operating Systems & Systems Software	TIUCSE-503	Operating Systems
12	AC60/AT60/AC 111/AT111	Computer Graphics & Visualization	TIUCSE-504	Computer Graphics and Multimedia Systems
13	AC61/AT61/AC 112/AT112	Database Management Systems	TIUCSE-502	Database Management Systems
14	AC92/AT92/AC 142/AT142	DBMS Lab	TIUCSE–592	Database Management System Lab
15	AC99/AT99/AC 137/AT138	Communication Skills & Technical Writing (Oral)	TIUFY-102	English for Communication
16	AC99/AT99/AC 137/AT138	Communication Skills & Technical Writing (Written)	TIUFY-102	English for Communication
17	AC62/AT62/AC 113/AT113	Operations Research & Engineering Management	TIUMTH-602	Operation Research and Optimization Techniques
18	AC63/AT63/AC 114/AT114	Software Engineering	TIUECE-603	Software Engineering
19	AC64/AT64/AC 115/AC115	Design & Analysis of Algorithms	TIUCSE-405	Design and Analysis of Algorithms

20	AC65/AC116	Discrete Structures	TIUMTH-302	Discrete Structures
21	AC72/AT72/AC 117/AT117	Linux Internals		
22		Elective-I(From Group A)		
23	AC93/AT93/AC 143/AT143	Analysis & Design of Algorithms Lab	TIUCSE -495	Design and Analysis of Algorithms Lab
24	AC118/AT118	Software Architecture		
25	AC67/AT67/AC 119/AT119	Data Communication & Computer networks	TIUCSE-604	Computer Networks
26	AC68/AC120	Finite Automata & Formal Languages	TIUCSE-406	Automata Theory and Logic
27		Elective –II (from Group B)		
28		Elective –III (from Group C)		
29	AC94/AT94/AC 144/AT144	μP & μC Lab	TIUECE-493	Microprocessor and Microcontroller Lab
30	AC69/AT69/AC 135/AT135	Project Work	TIUCSE-796, TIUCSE-896	Project Synopsis and Evaluation , Final Thesis/Dissertation
31	AC70/AT70/AC 136/AT136	Seminar	TIUCSE-792	Seminar
32	AC73/AT73/AC 121/AT121	C # and Net		
33	AC122	VLSI Design	TIUCSE-804	Elective –IV
34	AC74/AT74/AC 123/AT123	Artificial Intelligence & Neural Networks	TIUCSE-703	Artificial Intelligence
35	AC71/AT71/AC 124/AT124	Unix Systems Programs		
36	AC125	Software Testing		
37	AC126	Mobile Applications Development		
38	AC127	Wireless & Mobile Systems†		
39	AC75/AT75/AC 128/AT128	Internet Applications		
40	AC129	Cyber Crimes & IPR		
41	AC130	Compiler Design	TIUCSE-506	Compiler Design
42	AC131	Cloud computing	TIUCSE-804	Elective –IV
43	AC76/AT76/AC 132/AT76	Cryptography & Network Security	TIUHU-702	Cryptography and Network Security
44	AC78/AC133	Advance Microprocessors		

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IETE (DipIETE-ET) to TIU (Diploma – ECE) Transition Scheme

I   Passed Section – A, Part – I & II of DipIETE -ET

Transition into TIU Diploma- ECE

1. Gets admission in 2nd (3rd Semester) year Diploma -ECE

2. Will have to pass following courses of the 1st year during 2nd and 3rd year at TIU

S. No.	Course Code	Course Title	To be studied in
		THEORY	
a	TIUBSD-101 & 201	Career Advancement –Skill Development - I & II	Semester-3
b	TIUBSP-104	Physics-I	Semester-3
c	TIUBSC-105 & 203	Chemistry I & II	Semester-3
d	TIUBPM-106 & 204	Engineering Mechanics I & II	Semester-4
		PRACTICAL	
a	TIUBSP-194	Physics Lab	Semester-3
b	TIUBSC-195	Chemistry Lab	Semester-3
c	TIUBPM-297	Engineering Workshop	Semester-4
		SESSIONAL	
a	TIUCSL- 114, 281	Entrepreneurship Skill Development - I & II	Semester-3

3. Will get exemption in the following courses of 2nd & 3rd year of TIU since these have already been studied in Section–A, Part-I & II of IETE (DipIETE-ET)

TIU Courses		Equivalent IETE Courses	
Course code	Course Name	Sub Code	Sub Name
	THEORY		
TIUDCS-303	Programming in C	DE53/DE103	Computer Fundamentals and C Programming
TIUDEC-301	Network Theory	DE57/DE107	Networks & Transmission Lines
TIUDEC-302	Analog Electronics-I	DE56/DE106	Analog Electronics
TIUDEC-303	Digital Electronics	DE58/DE108	Logic Design
TIUDEC-402	Analog Electronics-II	DE56/DE106	Analog Electronics
	PRACTICAL		
TIUDCS-393	Programming in C Lab	DE91/DE141	C Programming Lab
TIUDEC-392	Analog Circuit Lab	DE92/DE142	Analog Electronics Lab

TIUDEC-493	Analog Electronics-II Lab	DE92/DE142	Analog Electronics Lab

4. Will get exemption in the equivalent courses as mentioned in Course Equivalency structure of DipIETE-ET VS TIU-Diploma ECE (Appendix-G) of Section – B, Part – I, if passed at IETE, even though Section-B Part-I not completed fully. The IETE will provide the passing certificate of such courses to the students.

5. The corresponding credits earned at IETE will be carried forward to TIU.

II   Passed Section–A, Part–I & II and Section–B, Part–I of DipIETE - ET

Transition into TIU Diploma- ECE

1. Gets admission in 3rd (5th Semester) year Diploma - ECE

2. Will have to pass following courses of the 1st & 2nd year during 3rd year at TIU

S. No.	Course Code	Course Title	To be studied in
THEORY			
a	TIUBSD-101, 201, 301, 401	Career Advancement –Skill Development - I to IV	Semester-5
b	TIUBSP-104	Physics-I	Semester-5
c	TIUBSC-105 & 203	Chemistry I & II	Semester-5
d	TIUBPM-106 & 204	Engineering Mechanics I & II	Semester-6
e	TIUDEC-404	Consumer Electronics	Semester-6
PRACTICAL			
a	TIUBSP-194	Physics Lab	Semester-5
b	TIUBSC-195	Chemistry Lab	Semester-5
c	TIUDEC-492	Microprocessor Lab	Semester-6
d	TIUDEC-494	Consumer Electronics Lab	Semester-6
SESSIONAL			
a	TIUCSL-114, 281, 381, 481	Entrepreneurship Skill Development - I to IV	Semester-3

3. Will get exemption in the following courses of 3rd year of TIU since these have already been studied in Section–A, Part-I & II and Section-B Part-I of IETE (DipIETE-ET).

TIU Courses		Equivalent IETE Courses	
Course code	Course Name	Sub Code	Sub Name
THEORY			
TIUDEC-502	Electronic Measurement	DE59/DE109	Electronic Instrumentation & Measurements
TIUDEC-503	Microcontroller and Embedded	DE60/DE111	Microprocessors &

	Systems		Microcontrollers
TIUDEC-603	Instrumentation and Control	DE59/DE109	Electronic Instrumentation & Measurements

4. Will get exemption in the equivalent courses as mentioned in Course Equivalency structure of DipIETE-ET VS TIU - Diploma-ECE (Appendix-G) of Section – B, Part – II, if passed at IETE, even though Section-B Part-II not completed fully. The IETE will provide the passing certificate of such courses to the students.

5. The corresponding credits earned at IETE will be carried forward to TIU.

III   Passed Section – A & B of DipIETE - ET Completely

Transition into TIU Diploma- ECE

Gets additional Diploma in Electronics & Communication from TIU after doing one semester (06 Months) bridge course comprising following course:

S. No.	Course Code	Course Title
		THEORY
a	TIUBSD-101, 201, 301, 401, 501, 601	Career Advancement –Skill Development - I to VI
b	TIUBSP-104	Physics-I
c	TIUBSC-105 & 203	Chemistry I & II
d	TIUBPM-106 & 204	Engineering Mechanics I & II
e	TIUDEC-404	Consumer Electronics
f	TIUDEC-504 & 602	Industrial Electronics I & II
g	TIUDEC-505	Elective –I (If not studied as Elective-I at IETE)
h	TIUDEC-604	Elective –II
		PRACTICAL
a	TIUDEC-492, 592	Microprocessor, Microcontroller and Embedded Systems Lab
b	TIUDEC-494, 593	Consumer and Industrial Electronics Lab
c	TIUDEC-691	Communication Engineering-III Lab
d	TIUDEC-692	Measurement Instrumentation and Control Lab
e	TIUDEC-693	Elective –II Lab
		SESSIONAL
a	TIUCSL-114, 281, 381, 481, 581, 681	Entrepreneurship Skill Development - I to VI

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IETE (DipIETE-CS) to TIU (Diploma– CSE) Transition Scheme

I   Passed Section – A, Part – I & II of DipIETE -CS

Transition into TIU Diploma – CSE

1. Gets admission in 2nd year (3rd Semester) Diploma CSE

2. Will have to pass following courses of the 1st year during 2nd and 3rd year

S. No.	Course Code	Course Title	To be studied in
		THEORY	
a	TIUBSD-101 & 201	Career Advancement –Skill Development - I & II	Semester-3
b	TIUBSP-104	Physics-I	Semester-3
c	TIUBSC-105 & 203	Chemistry I & II	Semester-3
d	TIUBPM-106 & 204	Engineering Mechanics I & II	Semester-4
		PRACTICAL	
a	TIUBSP-194	Physics Lab	Semester-3
b	TIUBSC-195	Chemistry Lab	Semester-3
c	TIUBPM-297	Engineering Workshop	Semester-4
		SESSIONAL	
a	TIUCSL- 114, 281	Entrepreneurship Skill Development - I & II	Semester-3

3. Will get exemption in the following courses of 2nd & 3rd year of TIU since these have already been studied in Section–A, Part-I & II of IETE (DipIETE-CS)

TIU Courses		Equivalent IETE Courses	
Course code	Course Name	Sub Code	Sub Name
		THEORY	
TIUDCS-303	Programming in C	DC53/DC103	Computer Fundamentals and C Programming
TIUDCS-305	Digital Logic Design	DC/58/DC108	Logic Design
TIUDCS-306	Computer Organisation	DC57/DC107	Computer Organisation
TIUDCM-402	Communication Skills	DC99/DC138	Communication Skills & Technical Writing
TIUDCS-403	Data Structures and Algorithms	DC/54/DC104	Data Structure
TIUDCS-406	Electronics devices and circuits	DC/52/DC102	Fundamentals of Electrical & Electronics

TIUDCS-503	Computer Architecture	DC57/DC107	Computer Organisation
TIUDCS-504	Object Oriented Methodologies	DC56/DC106	Object Oriented Programming with C++
PRACTICAL			
TIUDCS-394	Programming in C Lab	DC91/DC141	C Programming Lab
TIUDCM-491	Communication Skills Lab	DC98/DC137	Communication Skills & Technical Writing – viva
TIUDCS-492	Data Structure Lab in C	DC91/DC141	C & Data Structure Lab
TIUDCS-594	Object Oriented Programming Lab (C++)	DC92/DC142	OOPS Lab

4. Will get exemption in the equivalent courses as mentioned in Course Equivalency structure of DipIETE-CS VS TIU-Diploma CSE (Appendix-H) of Section – B, Part – I, if passed at IETE, even though Section-B Part-I not completed fully. The IETE will provide the passing certificate of such courses to the students.

5. The corresponding credits earned at IETE will be carried forward to TIU.

II   Passed Section–A, Part–I & II and Section–B, Part–I of DipIETE (CS)

Transition into TIU Diploma– CSE

1. Gets admission in 3rd year (5th Semester) Diploma CSE

2. Will have to pass following courses of the 1st & 2nd year during 3rd year at TIU

S. No.	Course Code	Course Title	To be studied in
THEORY			
a	TIUBSD-101, 201, 301, 401	Career Advancement –Skill Development - I to IV	Semester-5
b	TIUBSP-104	Physics-I	Semester-5
c	TIUBSC-105 & 203	Chemistry I & II	Semester-5
d	TIUBPM-106 & 204	Engineering Mechanics I & II	Semester-5
e	TIUDMT-303	Discrete Mathematics	Semester-5
f	TIUDCS-405	Numerical Methods	Semester-6
g	TIUDCS-407	Data Communication and Computer Networks	Semester-6
PRACTICAL			
a	TIUBSP-194	Physics Lab	Semester-5
b	TIUBSC-195	Chemistry Lab	Semester-5
c	TIUDCS-395	Digital Logic Design Lab	Semester-5
d	TIUDCS-493	Computer Networks Lab	Semester-6
e	TIUDCS-494	Numerical Methods Lab	Semester-6

SESSIONAL			
a	TIUCSL-114, 281, 381, 481	Entrepreneurship Skill Development - I to IV	Semester-5

3. Will get exemption in the following courses of 3rd year of TIU since these have already been studied in Section–A, Part-I & II and Section-B Part-I of IETE (DipIETE-CS)

TIU Courses		Equivalent IETE Courses	
Course code	**Course Name**	**Sub Code**	**Sub Name**
THEORY			
TIUDCS-503	Computer Architecture	DC57/DC107	Computer Organisation
TIUDCS-504	Object Oriented Methodologies	DC56/DC106	Object Oriented Programming with C++
TIUDCS-505	Operating Systems	DC61/DC110	Operating Systems & Systems Software
TIUDCS-506	Database Management Systems	DC62/DC112	Database Management Systems
TIUDCS-507	Introduction to Microprocessors & Interfacing	DC68/DC111	Microprocessor & Microcontroller
TIUDCS-602	System Programming	DC61/DC110	Operating Systems & Systems Software
PRACTICAL			
TIUDCS-594	Object Oriented Programming Lab (C++)	DC92/DC142	OOPS Lab
TIUDCS-695	Advanced Java Programming Lab	DC93/DC143	Java & Web Programming Lab

4. Will get exemption in the equivalent courses as mentioned in Course Equivalency structure of DipIETE-CS/IT VS TIU-Diploma CSE (Appendix-H) of Section – B, Part – II, if passed at IETE, even though Section-B Part-II not completed fully. The IETE will provide the passing certificate of such courses to the students.

5. The corresponding credits earned at IETE will be carried forward to TIU.

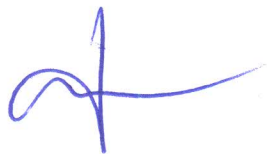## III   Passed Section – A & B of DipIETE - CS Completely

Transition into TIU Diploma– CSE

Gets additional Diploma in Computer Science & Engineering from TIU after doing one semester (06 Months) bridge course comprising following course:

S. No.	Course Code	Course Title
THEORY		
a	TIUBSD-101, 201, 301, 401, 501, 601	Career Advancement –Skill Development - I to VI

b	TIUBSP-104	Physics-I
c	TIUBSC-105 & 203	Chemistry I & II
d	TIUBPM-106 & 204	Engineering Mechanics I & II
e	TIUDMT-303	Discrete Mathematics
f	TIUDCS-405	Numerical Methods
g	TIUDCS-502	Theory of Computer Science and Automata
h	TIUDCS-605	Operation Research
PRACTICAL		
a	TIUDCS-395	Digital Logic Design Lab
b	TIUDCS-493	Computer Networks Lab
c	TIUDCS-494	Numerical Methods Lab
d	TIUDCS-595	Operating Systems lab
e	TIUDCS-597	Microprocessor Lab
f	TIUDCS-692	PC Maintenance Lab
g	TIUDCS-693	Internet Technologies Lab
h	TIUDCS-694	Computer Graphics Lab
SESSIONAL		
a	TIUCSL-114, 281, 381, 481, 581, 681	Entrepreneurship Skill Development - I to VI
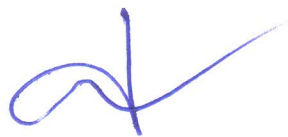
Course Equivalency
DipIETE –ET Vs TIU-Diploma - ECE

	DipIETE - ET		TIU - Diploma - ECE	
S. No.	Sub Code	Sub Title	Sub Code	
1	DE51/ DE101	Engineering Mathematics-I	TIUBFY-103	Mathematics-I
2	DE52/ DE102	Fundamentals of Electrical & Electronics	TIUBEE-205	Introduction to Electrical & Electronics Technology
3	DE53/ DE103	Computer Fundamentals & C Programming	TIUBCS-206	Computer Fundamentals & Programming Techniques
4	DE54/ DE104	Electronic Engineering Materials		
5	DE91/ DE141	C Programming Lab	TIUBCS-296, TIUDCS-393	Computer Application Laboratory, Programming in C Lab
6	DE55/ DE105	Engineering Mathematics-II	TIUBSM-202	Mathematics-II
7	DE56/ DE106	Analog Electronics	TIUDEC-302, TIUDEC-402	Analog Electronics I & II
8	DE57/ DE107	Networks & Transmission Lines	TIUDEC-301	Network Theory
9	DE58/ DE108	Logic Design	TIUDEC-303	Digital Electronics
10	DE92/ DE142	Analog Electronics lab	TIUBEE-295, TIUDEC-393, 493	Introduction to Electrical & Electronics Technology Laboratory and Simulation, Analog Circuit Lab, Analog Electronics-II Lab
11	DE99/ DE137	Communication Skills & Technical Writing (Oral)	TIUBFY-102	English Language & Communication
12	DE99/ DE138	Communication Skills & Technical Writing (Written)	TIUBFY-102	English Language & Communication
13	DE59/ DE109	Electronic Instrumentation & Measurements	TIUDEC-502, 603	Electronic Measurement, Instrumentation & Control
14	DE71/ DE110	Power Electronics		
15	DE60/ DE111	Microprocessor & Microcontrollers	TIUDEC-403,503	Microprocessor, Microcontroller & Embedded Systems
16	DE61/ DE112	Analog Communications	TIUDEC-401	Communication Engineering-I
17	DE62/ DE113	Telecommunication Switching Systems		
18	DE93/ DE143	Logic Design Lab	TIUDEC-393	Digital Electronics Lab
19	DE63/	Digital Communication	TIUDEC-501	Communication Engineering-II

	DE114			
20	DE67/ DE115	Embedded Systems	TIUDEC-503	Microcontroller & Embedded Systems
21	DE94/ DE144	Analog & Digital Communications Lab	TIUDEC-491, 591	Communication Engineering-I & II Lab
22	DE64/ DE135	Project Work	TIUDEC-581, 582	Intership Project Work, Final Year Project
23	DE136	Seminar	TIUDEC-681, 682	Seminar on Project, Viva Voce
24	DE66/ DE116	Wireless & Mobile Systems		
25	DE68/ DE117	Television Engineering & Broadcasting		
26	DE69/ DE118	Data Communication & Networks	TIUDEC-505.1	Computer Networks
27	DE119	Advanced Communication Systems	TIUDEC-601	Communication Engineering-III
28	DE65/ DE120	Control Engineering		
29	DE121	Verilog HDL & VLSI Design		
30	DE70/ DE122	OOPS with C++		
31	DE123	Java and Web Programming		

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Course Equivalency
DipIETE –CS Vs TIU-CSE

S. No.	Sub Code	Sub Title	Sub Code	
	DipIETE - CS		**TIU - Diploma - CSE**	
1	DC51/ DC101	Engineering Mathematics-I	TIUBFY-103	Mathematics-I
2	DC52/ DC102	Fundamentals of Electrical & Electronics	TIUBEE-205, TIUDCS-406	Introduction to Electrical & Electronics Technology, Electronic Devices & Circuits
3	DC53/ DC103	Computer Fundamentals & C Programming	TIUBCS-206, TIUDCS-304	Computer Fundamentals & Programming Techniques, Programming in C
4	DC54/ DC104	Data Structure	TIUDCS-403	Data Structure & Algorithms
5	DC91/ DC141	C & Data Structure Lab	TIUDCS-394, 492	Programming in C Lab, Data Structure Lab in C
6	DC55/ DC105	Engineering Mathematics-II	TIUBSM-202	Mathematics-II
7	DC56/ DC106	Object Oriented Programming with C++	TIUDCS-504	Object Oriented Methodologies
8	DC57/ DC107	Computer Organisation	TIUDCS-306, 503	Computer Organisation, Computer Architecture
9	DC58/ DC108	Logic Design	TIUDCS-305	Digital Logic Design
10	DC92/ DC142	OOPS Lab	TIUDCS-504	OOPS Lab (C++)
11	DC99/ DC137	Communication Skills & Technical Writing (Oral)	TIUDCM-491	Communication Skills Lab
12	DC99/ DC138	Communication Skills & Technical Writing (Written)	TIUBFY-102	English Language & Communication
13	DC59/ DC109	Analysis Design of Information Systems	TIUDCS-505	Operating Systems
14	DC61/ DC110	Operating Systems & Systems Software	TIUDCS-602	Systems Programming
15	DC68/ DC111	Microprocessors & Microcontrollers	TIUDCS-507	Introduction to Microprocessors & Interfacing
16	DC62/ DC112	Database Management Systems	TIUDCS-506	Database Management Systems
17	DC60/ DC113	Java & Web Programming		
18	DC93/ DC143	Java & Web Programming Lab	TIUDCS-396, 695	Website Design & Development Lab, Advanced

				Java Programming Lab
19	DC63/ DC114	Data Communication & Networks	TIUDCS-407	Data Communication & computer Networks
20	DC65/ DC115	Software Engineering	TIUDCS-603	Software Engineering
21	DC94/ DC144	DBMS Lab	TIUDCS-596	DBMS Lab
22	DC64/ DC135	Project Work	TIUDCS-598, 696	CST Project Work
23	DC136	Seminar	TIUDCS-687	Seminar on CSR Project Work
24	DC66/ DC116	Computer Graphics & Visualization	TIUDCS-604	Computer Graphics
25	DC69/ DC117	C# & .Net		
26	DC71/ DC118	Internet Applications		
27	DC119	Cloud Computing		
28	DC120	Software Testing		
29	DC67/ DC121	Embedded Systems		
30	DC122	Mobile Applications Development		
31	DC71/ DC123	Network Management		