Annexure 10

Mandatory Disclosures of Dumkal Institute of Engineering & Technology, Murshidabad, W.B.

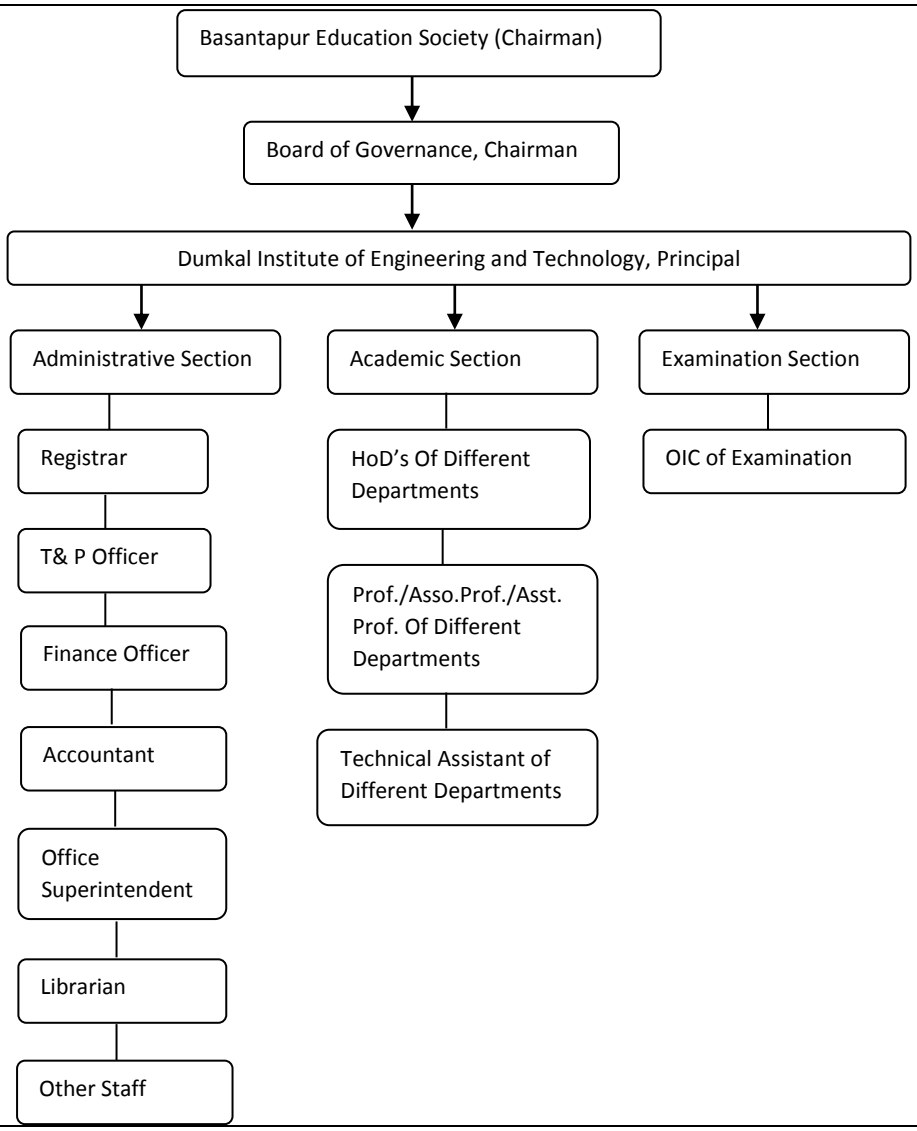
1.	Name of the Institution	DUMKAL INSTITUTE OF ENGINEERING & TECHNOLOGY
	Address	Vill+PO- Basantapur, PS- Domkal, Dist.- Murshidabad, Pin- 742406, State- West Bengal
	Mobile No	7872377268
	E-Mail	dietnet@hotmail.com; directordiet1@gmail.com

2	Name and address of the Trust/Society✓/Company and the Trustees	BASANTAPUR EDUCATION SOCIETY
	Address	Vill+PO- Basantapur, PS- Domkal, Dist.- Murshidabad, Pin- 742406, State- West Bengal
	Mobile No	7872377268
	E-Mail	b-e-s95@hotmail.com

3	Name and Address of the Vice Chancellor/Principal✓/Director	Prof. Dr. Md. Headayetullah
	Address	Vill+PO- Basantapur, PS- Domkal, Dist.- Murshidabad, Pin- 742406, State- West Bengal
	Mobile No	7872377268
	E-Mail	directordiet1@gmail.com

4	Name of the affiliating University	Maulana Abul Kalam Azad University of Technology, West Bengal (formerly known as WBUT)

5	**Governance**			
	Members of the Board	**Name**	**Designation**	**Position held in BoG**
		1. Dr Nazrul Islam	Chairman, Basantapur Education Society (BES)	Chairman
		2. Sariful Islam Biswas	Secretary, BES	Member
		3. Najimuddin Shaikh	Member, BES	Member
		4. Dr Kumud Gupta	Professor, EC	Member
		5. Md Faisal Kabir	Principal, Dumkal Polytechnic	Member
		6. Md Hamid Islam	Assistant Professor, DIET	Member
		7. Subhasis Biswas	Assistant Professor, DIET	Member
		8. Dr Abhijit Biswas	Nominee, Govt of West Bengal	Member
		9. Mr Mihir Sing	Nominee, MAKAUT	Member
		10. ERO, AICTE	ERO, AICTE (Ex Officio)	Member
		11. Prof Dr Md Headayetullah	Principal, DIET	Member Secretary

Academic Advisory Body	1. Prof. Dr. Md. Headayetullah, Principal 2. Md. Hamid Islam, Registrar 3. Subhasis Biswas, Assistant Professor, HOD, CSE 4. Suman Pal, Assistant Professor, Assistant HOD, CSE 5. Baibhav Roy, Assistant Professor, HOD, Civil Engineering 6. Bithun Sarkar, Assistant Professor, HOD, Mechanical Engineering 7. Debasish Sarkar, Assistant Professor, Assistant HOD, Mechanical Engineering 8. Sourav Ghosh, Assistant Professor, Electrical Engineering 9. Chandrachur Pal, Assistant Professor,HOD, Electrical Engineering 10. Samiran Sarkar, Assistant Professor, HOD, ECE
Frequency of the Board Meeting and Academy	Board Meeting- Quarterly Academic Meeting- Weekly
Organizational Chart	

Nature and Extent of Involvement of Faculty and students in academic affairs/improvements	Faculty members take regular classes as per syllabus and help students in different extra-curricular activities to enrich their knowledge. Students also organize different seminar, quiz etc.
Mechanism/Norms and Procedure for democratic/ good Governance	A well organizational structure is maintained for good governance where principal is the key person.
Student Feedback on Institutional Governance/Faculty performance	Students have free access to the Principal, Registrar and the HODs. They can share their views in any matter to the higher management easily.
Grievance Redressal Mechanism for faculty, staff and students	College maintains a grievance drop box. Competent committee like Anti Ragging Committee, Anti Ragging Squad and several students' sub-committees take appropriate timely action.
Anti Ragging Committee	Establishment of Anti Ragging Committee (As per All India Council for Technical Education notified Regulation for prevention and prohibition of ragging in AICTE approved Technical Institutions vide No. 37-3/ Legal/ AICTE/ 2009 dated 01.07.2009) **Members of the Anti Ragging Committee (Institute Level)** 1. Prof. Dr. Md. Headayetullah, Principal (Chairperson) 2. Md Hamid Islam, Academic Convener (Vice Chairperson) 3. Sub-Divisional Police Officer,Dumkal,Murshidabad 4. Inspecter in Charge, Dumkal,Murshidabad 5. Liakat Hossain, Notary Public, Dumakl, Murshidabad 6. Suman Pal, Assistant HOD, CSE 7. Faruk Aktar Saikh, Faculty, ME 8. Baibhav Roy, HOD, CE 9. Samiran Sarkar, HOD, ECE 10. Mr. Subhasis Biswas, HOD,CSE 11. Bithun Sarkar, HOD-in-charge, ME 12. Dr. SubrataKar, Faculty, Mathematics 13. Tanmoy Dutta, Faculty, EE 14. Saik Md Mahatabuddin, Superintendent Boys' Hostel 15. Nilima Pandey, Superintendent Girls' Hostel 16. Sahabur Ali, Guardian of SelimMondal 17. Atanu Sen,AP,ECE 18. Manirul Islam, Non-Teaching Staff 19. Jharna Biswas, Non-Teaching Staff 20. Asraful Islam, O.S. 21. Sainul Islam 22. Minnaj Ali
Establishment of online Grievance Redressal Mechanism	Online Grievance Redressal included in our official website.

Grievance Redressal Committee	Establishment of Grievance Redressal Committee in the Institution and Appointment of OMBUDSMAN by the University. (As per All India Council for Technical Education (Redressal of Grievance of Students) Regulations, 2019 vide F.No. 1-101/PGRC/AICTE/Regulation/2019 dated 07.11.2019) **Members of the Grievance Redressal Committee (Institute Level)** 1. Prof. Dr. Md. Headayetullah, Principal (President) 2. Samiran Sarkar,HOD, ECE, Convener 3. Md. Hamid Islam, Assistant Professor, CSE, Member 4. Faruk Aktar Saikh, Faculty, ME, Member 5. Subhasis Biswas, TPO, Member 6. Dr. Subrata Kar, Faculty, Mathematics, Member 7. Arnab Bera, AP, English, Member 8. Mahmooda Khatun, AP, Mathematics, Member 9. Sandipan Biswas, AP, CSE, Member 10. Sourav Ghosh, AP, EE, Member
Internal Complaint Committee	Establishment of Internal Complaint Committee (ICC) (As per Section 4 All India Council for Technical Education (Gender Sensitization, Prevention and Prohibition of Sexual Harassment of Women Employees and Students and Redressal of Grievances in Technical Institutes) Regulations, 2016. **Members of the Task Force to Prevent Women sexual harassment at work place (Institute Level)** 1. Mehmooda Khatun, Faculty, Basic Science, Chairperson 2. Subhasis Biswas, HOD, CSE, Member 3. Sarifun Khatun, Faculty,Basic Science, Member 4. Bithun Sarkar, HOD-in-charge, ME, Member 5. Samiran Sarkar, HOD, ECE, Member 6. Md. Hamid Islam, Registrar, Member 7. Jharna Biswas, Non-Teaching staff, Member 8. Sabnaj Parvin, Student, 4th year, Member 9. Moumita Mondal, Student, 3rd year, Member 10. Julfa Begum, Student, 3rd year, Member 11. Sujata Das, Student, 2nd year, Member 12. Jhuma Mondal, Faculty and Member Secretary

<table>
<tr><td>SC/ST Committee</td><td>The SC/ST Committee of Dumkal Institute of Engineering & Technology is formed as here under the Scheduled Castes & the Scheduled Tribes (Prevention of Atrocities) Act, 1989, No. 33 OF 1989, dated 11.09.1989.

Members of SC/ST Committee (Institution level)

1) Prof. (Dr.) Md. Headayetullah (Chairperson)
2) Samiran Sarkar (Vice Chairperson)
3) Kapil Dev Das (Assistant Professor, Dept. of CSE, Member)
4) Anupam Roy (Assistant Professor, Dept. of CSE, Member)
5) Joydeb Bepari (Student, Dept. of ME, Member)
6) Akash Biswas (Student, Dept. of EE, Member)
7) Tapas Das (Student, Dept. of CE, Member)</td></tr>
<tr><td>Internal Quality Assurance Cell</td><td><u>Internal Quality Assurance Cell (IQAC)</u>
The Internal Quality Assurance Cell of Dumkal Institute of Engineering & Technology has been formed with the following members as per Appendix 6 of the AICTE, approval process Handbook 2021-2022.

Members of the IQAC, DIET

<table>
<tr><th>Sl No</th><th>Member Name</th><th>Position hold in this Committee</th><th>Email Id</th></tr>
<tr><td>1</td><td>Prof. Dr. Md. Headayetullah
Principal, DIET</td><td>Chairperson</td><td>directordiet1@gmail.com
dietnet@hotmail.com</td></tr>
<tr><td>2</td><td>Suman Pal,
AP, DIET</td><td>Member</td><td>mr.sumanpal@gmail.com</td></tr>
<tr><td>3</td><td>Faruk Aktar Saikh
AP, DIET</td><td>Member</td><td>frkmrn@gmail.com</td></tr>
<tr><td>4</td><td>Baibhav Roy
AP, DIET</td><td>Member</td><td>tanoy.1989@gmail.com</td></tr>
<tr><td>5</td><td>Samiran Sarkar
AP, DIET</td><td>Member</td><td>samiran25@gmail.com</td></tr>
<tr><td>6</td><td>Dr. Subrata Kar
AP, DIET</td><td>Member</td><td>subrata.bacchu@gmail.com</td></tr>
<tr><td>7</td><td>Subhasis Biswas
AP, DIET</td><td>Senior Administrative Official Member</td><td>subhasisbis@gmail.com</td></tr>
<tr><td>8</td><td>Indranil De Sarkar
MD,
Ardent Computech Pvt. Ltd.</td><td>External expert Industry</td><td>indranildesarkar@ardentcollaboration.com</td></tr>
<tr><td>9</td><td>Mr. Monojit Chakraborty
MD,
High-Tech next Engineering & Telecom Pvt. Ltd.</td><td>External expert Industry</td><td>support@high-technext.com</td></tr>
<tr><td>10</td><td>Md. Hamid Islam
Registrar</td><td>Member Secretary</td><td>hamidcse@gmail.com</td></tr>
</table>
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6	Programmes							
	Name of Programmes approved by AICTE	B.Tech- Civil Engineering, Mechanical Engineering, Electrical Engineering, Computer Science & Engineering and Electronics & Communication Engineering. M.Tech- Electronics & Communication Engineering.						
	Total No of Course	B. Tech- 05 M Tech- 01						
	No of Courses for which applied for accreditation	B. Tech- 05 M Tech- 01 Total 06						
	Programme Details given below:							
	Sl No	Programme Name	No of Seat	Duration (Year)	Cut of Marks	Fees	Placement Facilities	
	1.	B.Tech-CSE	60	4	As per University Norms (P+C+M= 45% or above)	1,30,000.00	Available	
	2.	B.Tech- EE	60	4		1,70,000.00	Available	
	3.	B.Tech-ECE	60	4		1,30,000.00	Available	
	4.	B.Tech-CE	60	4		1,70,000.00	Available	
	5.	B.Tech-ME	60	4		1,70,000.00	Available	
	6.	M.Tech-ECE	18	2		1,60,500.00	Available	

Student placed	2019		2020		2021	
	CSE	08	CSE	06	CSE	3
	ECE	03	ECE	00	ECE	0
	AEIE	01	EE	12	EE	9
	EE	10	ME	09	ME	8
	ME	14	CE	11	CE	7
	CE	12				

Salary Package	2019		2020		2021	
	Min	Max	Min	Max	Min	Max
CSE	1 lac/anum	3.35 lac/anum	1 lac/anum	3.35 lac/anum	1.2 lac/anum	3.5 lac/anum
ECE	1.2 lac/anum	3.35 lac/anum	na	na	1.2 lac/anum	3.5 lac/anum
AEIE	1.2 lac/anum	3.35 lac/anum	na	na	Na	na
EE	1.44 lac/anum	1.8 lac/anum	1.2 lac/anum	1.8 lac/anum	1.2 lac/anum	2.4 lac/anum
ME	1.44 lac/anum	1.8 lac/anum	1.2 lac/anum	1.8 lac/anum	1.2 lac/anum	1.8 lac/anum
CE	1.2 lac/anum	1.8 lac/anum	1.44 lac/anum	1.8 lac/anum	1.44 lac/anum	1.8 lac/anum

7	Faculty details			
	Course/Branch	Permanent Faculty	Adjunct Faculty	Faculty : Student Ratio
	CSE	12		1:20
	EE	12		1:20
	ME	11		1:20
	CE	11		1:20
	ECE	12		1:20
	M.Tech-ECE	03		1:15

Number of Faculty employed (last three year)	Number of Faculty left (last three year)
14	14

8	Faculty Details

Computer Science & Engineering Department

Sl No	Name	Qualification M.Sc/ B Tech/M Tech/PhD (UG & PG-Both)	Experience (Years)
01	Asif Ikbal Mondal	UG & PG	7.2
02	Jahiruddin Ahamed	UG & PG	13.6
03	Subhasis Biswas	UG & PG	14.6
04	Md. Hamid Islam	UG & PG	16.7
05	Anupom Roy	UG & PG	14.7
06	Sandipan Biswas	UG & PG	14.9
07	Sarkar Karmakar	UG & PG	14.6
08	Kapil Dev Das	UG & PG	10.2
09	Taniya Sahana	UG & PG	10.2
10	Suman Pal	UG & PG	10.2
11.	Sampa Debnath	UG & PG	1

Electronics & Communication Engineering

Sl No	Name	Qualification MSc/ B Tech/M Tech/PhD (UG & PG-Both)	Experience (Years)
1.	Ram Yadav	UG & PG	6.6
2.	Hasanuzzaman Hasan	UG & PG	7.6
3.	Md Al Amin Hossain	UG & PG	2.1
4.	Juthika Parvin	UG & PG	2.1
5.	Priyanka Bakundi	UG & PG	2.1
6.	Mohammed Azhar Islam	UG, PG	8.2
7.	Samiran Sarkar	UG & PG	14.6
8.	Atanu Sen	UG & PG	13.6
9.	Afjal Hossain	UG & PG	0
10.	Sofikul Islam Sarkar	UG & PG	0
11.	Md. Taslim Haidar	UG & PG	13.6
12.	Mohammad Shahidullah	UG, PG	0
13.	Anisur Rahaman	UG, PG	0
14.	Dr. Subrata Kar	UG, PG & PhD	20.8
15.	Maidul Islam	UG, PG	0

Mechanical Engineering

Sl No	Name	Qualification MSc/ B Tech/M Tech/PhD (UG & PG-Both)	Experience (Years)
1	Someshwar Chowdhury	UG & PG	8.4
2.	Bithun Sarkar	UG & PG	7.6
3.	Debasish Sarkar	UG & PG	7
4.	Faruk Aktar Saikh	UG & PG	2
5.	Rofikul Islam	UG & PG	2
6.	Anirban Hazra	UG & PG	1
7.	Manjur Aktar	UG & PG	0
8.	Sujan Ansary	UG & PG	0
9.	Hasanuzzaman Shaikh	UG & PG	1
10.	Samsul Alam Sekh	UG & PG	0
11.	Mahammad Mominul Islam	UG & PG	0

Electrical Engineering

Sl No	Name	Qualification MSc/ B Tech/M Tech/PhD (UG & PG-Both)	Experience (Years)
1.	Koushik Debnath	UG & PG	8.4
2.	Ayan Banerjee	UG & PG	7
3.	Sourab Hossain	UG & PG	6.6
4.	Tanmoy Dutta	UG & PG	2
5.	Sourav Ghosh	UG & PG	9.5
6.	Chandrachur Pal	UG & PG	9.2
7.	Ataul Hoque Mandal	UG & PG	7.2
8.	Jhuma Mandal	UG & PG	7.2
9.	Mohammad Faruki Abedin	UG & PG	0
10.	Mohammad Sahin Sariar	UG & PG	11
11.	Kazi Sabana Pervin	UG & PG	0
12.	Faijal Bin Ahamed	UG & PG	1

Civil Engineering

Sl No	Name	Qualification MSc/ B Tech/M Tech/PhD (UG & PG-Both)	Experience (Years)
1.	Baibhav Roy	UG & PG	6.7
2.	Amir Sarkar	UG & PG	3.6
3.	Amit Kumar Halder	UG & PG	1
4	Md Kamruzzaman	UG & PG	1
5	Shain Kader	UG & PG	2.6
6.	Sarifun Khat un	UG & PG	1
7.	Rayhan Rafsan Ali	UG & PG	0
8.	Sarajeet Pal	UG & PG	1
9.	Sahinur Mondal	UG & PG	1
10.	Arnab Bera	UG & PG	12
11.	Mahmooda Khatun	UG & PG	3.6

9	Fee	
	B.Tech-1st year entry	1,30,000.00 (For CSE,ECE) 1,70,000(For ME,EE,CE)
	B.Tech- Lateral Entry	1,30,000.00 (For CSE,ECE) 1,70,000(For ME,EE,CE)
	M.Tech -ECE	1,60,500.00
	Schedule for fee payment	Semester wise
	No of TFW	na
	Total amount waived	na
	Name of the students	na
		na
		na
	Criteria for fee waivers	As per State Government rule
	Estimated cost of Boarding and Lodging in Hostels	1,000.00 per month

10	Admission			
	Year of Approval		2021-2022	
	Total Number of seats		318	
	Number of students admitted branch wise	2019-2020	2020-2021	2021-2022
	B.Tech-CSE	19	18	9
	B.Tech-ECE	14	00	2
	B.Tech-CE	18	19	5
	B.Tech-ME	20	18	0
	B.Tech-EE	19	19	5
	M.Tech-ECE	03	01	2

11	Admission Procedure	
	Admission Test	1. West Bengal Joint Entrance Examination (WBJEE). Test agency: West Bengal Joint Entrance Examinations Board Website: www.wbjeeb.nic.in 2. JEE Main Test agency: National Testing Agency Website: www.jeemain.nta.nic.in
	Number of seats allotted	1. WBJEE-270 nos students 2. JEE main- 30 nos students

12	Admission Criteria
	The students who have passed Higher Secondary (10+2) Examination of the West Bengal Council of Higher Secondary Education or any equivalent examination of any recognized Central/State Board/University have minimum aggregate (Physics + Chemistry + Mathematics - 45%) marks as per the directive the State Government issued from time to time have to qualify any of the following admission test with a valid rank.

13	Information of Infrastructure and Other Resources Available		
	Number of Class Rooms and Size	24	101 sqm (each) approx
	Number of Tutorial Room and Size	07	38 sqm (each) approx
	Number of Laboratories and size	40	105 sqm (each) approx.
	Number of Drawing Halls and Capacity	01	60 Nos.
	Number of Computer centre and capacity	01	30 Nos

Examination Control cell and capacity	01	30 sqm
Online examination facility	Yes	
Occupancy Certificate	Yes	
Fire and Safety Certificate	Yes	
Hostel Facility	Yes	Boys- 04 numbers Girls- 01 number

14	Library	
	Number of Books Titles/Journals Available	Titles: a. CSE- 601 b. IT - 557 c. ECE- 603 d. EIE - 529 e. EE - 593 f. ME - 485 g. CE - 462 h. Physics- 167 i. Chemistry- 155 j. Mathematics- 368 k. Management- 219 l. Humanities- 71 m. E-Library- 284 5094 Volumes: a. CSE- 3489 b. IT - 3102 c. ECE- 3424 d. EIE - 3180 e. EE - 3281 f. ME - 2261 g. CE - 2106 h. Physics- 633 i. Chemistry- 611 j. Mathematics- 1787 k. Management- 1075 l. Humanities- 311 m. E-library- 284 25544
	List of online National/International journals subscribed	47
	E Library facility	Yes
	National Digital Library subscription	Yes

Laboratory and workshop

Electronics & Communication Engineering

Sl No	LAB NAME	EQUIPMENTS	FUNCTION
1	DSP	DSP KIT, COMPUTER	PROGRAMS ON MATLAB
2	COMMUNICATION	COMMUNICATION KIT, CRO, FUNCTION GENERATOR	EXPERIMENTS ON COMMUNICATION
3	ANALOG ELECTRONICS	CRO, FUNCTION GENERATOR, AMPLIFIER KIT, DISCRETE COMPONENTS	EXPERIMENTS ON AMPLIFIER, CUT OFF FREQUENCY ETC
4	MICROWAVE AND TRANSMISSION LINES	MICROWAVE TEST BENCH	EXPERIMENTS ON ANTENNA AND MICROWAVE ENGG
5	SIGNALS AND SYSTEMS	COMPUTER	MATLAB PROGRAMMING
6	CONTROL SYSTEMS	COMPUTER	MATLAB PROGRAMMING
7	ADVANCED COMMUNICATION	KIT, PC	SATELLITE UP LINK DOWN LINK GSM ETC
9	BASIC ELECTRONICS	DISCRETE COMPONENTS	EXPERIMENTS ON DIODE TRANSISTORS ETC
10	DIGITAL ELECTRONICS	DISCRETE COMPONENTS AND KIT	EXPERIMENTS ON LOGIC GATES DIGITAL ICs
11	MICROPROCESSOR	8085 KIT	PROGRAMS ON 8085 MICROPROCESSOR
12	VLSI Design Lab	a. Computer b. FPGA Trainer Kit	Simulation & Programming

PG- ECE

Sl No	Lab Name	Equipment	Experiment name
1	Advanced Communication lab	OFC	OFC /measurement of NA
		GPS	GPS Trainer kit
		QPSK	QPSK Modulation/Demodulation
		Satellite	Satellite Communication/ uplink/downlink
		GSM	GSM Trainer kit

2	Communication System Lab	FSK PSK PCM	FSK PSK PCM
3	Design & Simulation Lab	Computer / Software	Mat lab / Simulink Xilinx ISE/system generator

Electrical Engineering

Basic Electrical Engineering Lab	
(ES EE-191)	
SL NO	**Experiment kit / Set up Details**
1	Kit for Verfication of Superposition Theorem
2	Kit for experiment on Thevenins Theorem
3	Kit for experiment on Norton Theorem
5	Charactristics for determination tungsten and carbon filament lamp Panel Board
6	Training panel to determination of Ammeter calibration
7	Kit for experiment on determination of the characteristics of R L C Series Circuit
8	Trainer setup of the calibration of WATTMETER
9	Trainer panel to determine the characteristics of a fluroscent lamp
10	Setup for experiment on Calibration of a AC energy meter
11	Trainer setup for starting and reversing speed of DC Shunt motor
12	Experimental setup for measurement of armature and field resistance of a DC motor
13	Trainer setup for experiment on Open circuit & short circuit test of a single phase transformer
14	Experimental setup for measurement of power in 3 phase circuit by 2 wattmeter method
15	Setup for 3 phase power measurement and starting of 3-phase Induction motor by TOL & Star-Delta starter

Circuit Theory Lab	
EE 391	
Sl No.	**Experiment setup Hardware details**
1	Experiment on Passive filter (Low Pass,High Pass, Band Pass, Band Reject)
	a) Electronics Training Board on Passive Filters
	b) CRO 20MHz Quantity: 04 (APLAB, YOKOGAWA)
	c) Function Generator 3 MHz, 230V AC 15VA, Quantity: 05 (APLAB)

2	Two Port Network set (Z & Y Parameter)
	a) DC Power Supply 0-30V, Quantity: 05 (DD Gen & Elec. Metravi)
	b) Ammeter (0-0.5A)
	c) Voltmeter (0-230V)
	d) Digital Multimeter (Quantity: 06)
3	Transient Response of R L C Circuit Kit, 230V Quantity: 01 (Synchro Electronics)

Electrical Measurement Laboratory (EE 492)	
Sl No	**Experimental setup detail**
1	Kelvin Double Bridge
2	Anderson Bridge
3	De Sauty's Bridge
5	Wein Bridge
6	Schering bridge
7	Instrument Transformer (PT & CT)
8	Measurement of 3 phase power using 2 wattmeter

Electrical Machine Lab **(EE 491 & EE 591)**	
Setup No.	**Training panel Name**
1	Motor & Generator panel board (DC Shunt motor and generator)
2	Three phase induction motor panel board for no load and bocked rotor test
3	Panel board for the study of the characteristics of DC Compound generator
4	Panel for the study of the performance of SCIM and determination of iron loss, F & W loss
5	Panel for the study of the charateristics of the DC Shunt motor
6	Panel for the measurement of the speed of DC Series motor as function load torque
7	Panel for the study of the performance of WRIM
8	Panel for different connection of three phase transformer
9	Panel for polarity test of a single phase transformer
10	Panel for speed control of DC Shunt motor
11	Panel for speed control for three phase SCIM by different method and their comparison
12	Panel for different method of starting of three phase SCIM and their comparison
13	Panel for the determination of regulation of an alternator by synchronous impedance method
14	Panel for determination of magnetization curve of an alternator
15	Panel for to ake connection diagram of full pitch and fractional slot winding of an 18 slot SCIM for a 6 pole and 4 pole operations
16	Panel for Load test on 1 phase induction motor and deriving its performance charateristics
17	Panel for study of various connections of 6 coil alternator and its operation on no load
18	Panel for Determine the Xd and Xq of a salient pole synchronous machine
19	Panel for load test on a WRIL and deriving its performance characteristics
20	Panel for determination of equivalent circuit parametrs of single phase induction motor.

Power System Lab **(EE 592 & EE 692)**	
Sl. No	**SETUP/ EXPERIMENT DETAILS**
1	Study of Different Types of Insulator
2	Different Parameter Calculation of Transmission By Power Circle Diagram
3	DC Distribution System Trainer with Network Analyser
4	Determination of Generalised Constant A,B , C, D of a long Transmission line
5	Determination of Break Down Strength of Solid insulating material
6	Dielectric Strength Test of Insulating oil

7	Active & Reactive Power Control of an Alternator
8	Measurement of Earth resistance
9	Study of the characteristics of over current relay
10	Study of the characteristics of earth fault relay
11	ON Load and OFF Load Time Delay Relay
12	Set up for Transformer Protection Relay
13	Polarity, ratio and magnetic test of CT and PT
14	Study of the characteristics of under voltage relay
15	Protection scheme of three phase IM motor using Micom Relay.

Power Electronics & Drives Lab **(EE693 & EE791)**	
Sl No	**Experimental Trainer kit / Setup Hardware**
1	Trainer kit for study of VI characteristics of SCR
2	Trainer kit for studying of differernt triggering circuit of SCR
3	Trainer kit for study of single phase full controlled converter
4	Trainer kit for study of single phase half controlled symmetrical & asymmetrical converter
5	Trainer kit for study of 3phase controlled converter
6	Trainer kit for study of chopper controlled DC motor drive
7	Trainer kit for study of dual converter
8	Trainer kit for study of PWM controlled sine inverter
9	Trainer kit for study of triggering circuit of half & full controlled bridge
10	Trainer kit for study of cycloconverter
11	Trainer kit for study of step up & step down chopper
12	Set up for Study of AC 1 phase motor speed control using triac
13	Set up for Study of SCR controlled for separeately controlled DC motor
14	Set up for Study of chopper fed separetly excited DC motor drive

Control System Laboratory **PC-EE-503**	
Sl No	**Experimental setup name**
1	MAT-Lab control system tool box, MAT-Lab- simulink tool box.
2	Determination of Step response for first order & Second order system with unity feedback with the help of MATLAB & calculation of control system specification , Time constant, % peak overshoot, settling time etc. from the response.
3	Simulation of Step response & Impulse response for type-0, type-1 & Type-2 system with unity feedback using MATLAB.
4	Determination of Root locus, Bode plot, Nyquist plot using MATLAB control system tool box for a given system & stability by determining control system specification from the plot.

5	Determination of PI, PD and PID controller action of first order simulated process using MATLAB..
6	Determination of approximate transfer functions experimentally from Bode plot using MATLAB..
7	Evaluation of steady state error, setting time, percentage peak overshoot, gain margin, phase margin with addition of Lead, Lag, Lead-lag compensator using MATLAB.
8	Study of a practical position control system obtaining closed step responses for gain setting corresponding to over-damped and under-damped responses using MATLAB.
9	Determination of rise time and peak time using individualized components using MATLAB simulation.
10	Determination of un-damped natural frequency and damping ratio from experimental data using MATLAB.
11	Analysis of performance of Lead, Lag and Lead-Lag compensation circuits for a given system using MATLAB simulation.
12	Determination of Transfer Function of a given system from State Variable model and vice versa using MATLAB.
13	Analysis of performance of a physical system using State variable technique using MATLAB simulation.
14	Study of step response and initial condition response for a single input, two-output system in SV form by using MATLAB simulation.

Physics laboratory

Experiment name	Apparatus
1. Determination of e/m by J.J. Thomson's method	Two bar magnets ,cathode ray tube etc moment of inertia , slide calipers,screwgauge, stop watch
2. To determine the modulus of rigidity by dynamic method	Red filter, Yellow filter, Violet filter ,Photo cell
3. Determination of Planck's constant using photo cell	Stefans contant apparatus with EZ-81 diode valve
4. Determination of Stefan's constant	optical bench, laser source, difration gratting
5. To determine the uwavelength of given unknown lines by laser diffraction method.	gauss meter, mV meter,semicodutor etc.
6. Determination of Hall coeficient of semiconductor	semiconductor, thermometer, power supply , coil .
7. Determination of band gap of semiconductor	Newton 's ring set up , sodium vapour lamp.
8. To determine of wavelength of Na light by forming Newtons rings.	Carey foster bridge , resistance, power supply gavonometer etc.
9. To find out unknown resistance & resistivity by Carry foster method .	bar, weight, travelling microscope, pin hanger screwgauge , slide calipers.
10. To determine Young modulus by flexure method.	U tube , water, scale, stop watch etc.
11. To find out coefficient of viscosity by poiseulle method	thermocouple kit Cu-Cns , power supply , thermometer, heater.
12. Deter mine of thermo electric power of certain temperature	

Mechanical Engineering

Mechanical Engineering Laboratory Experiments Detailed List

Sl. No	**Name of the Laboratory**	**Name of Lab (as per new syllabus)**	**Experiment Title**
1	Workshop I & II	Workshop/ Manufacturing Practices (ES-ME192/ ES-ME 292)	1. Manufacturing Methods- casting, forming, machining, joining, advanced manufacturing methods 2. CNC machining, Additive manufacturing 3. Fitting operations & power tools 4. Electrical &Electronics 5. Carpentry 6. Plastic moulding, glass cutting 7. Metal casting 8. Welding (arc welding & gas welding), brazing
2		Practice of Manufacturing Processes (PC-ME391)	1. Machine Shop: Taper turning, drilling, boring, shaping and milling operations 2. Pattern Making: 1 or 2 wooden patterns to make 3. Moulding 4. Smithy Shop 5. Welding Shop: Practicing SMAW, Gas Welding and/or GMAW 6. Fitting Shop 7. Sheet Metal Shop

3	Engineering Drawing & Computer Graphics Laboratory	Engineering Graphics & Design (ES-ME191/ ES-ME 291)	1. Introduction to engineering drawing 2. Lettering, dimensioning, scales 3. Geometrical construction and curves 4. Projection of points, lines, surfaces 5. Projection of regular solids 6. Combination of regular solids, floor plans 7. Isometric projections 8. Sections and sectional views of right angular solids 9. Overview of computer graphics, customization& cad drawing 10. Annotations, layering & other functions 11. Demonstration of a simple team design project.
4		Machine Drawing I (PC-ME492)	1. Schematic product symbols for standard components in mechanical, electrical and electronic systems, welding symbols and pipe joints 2. Orthographic projections of machine elements, different sectional views- full, auxiliary sections; Isometric projection of components 3. Assembly and detailed drawings of a mechanical assembly, such as a plummer block, tool head of a shaping machine, tailstock of a lathe, simple gear box, flange coupling, welded bracket joined by stud bolt on to a structure, welded pipe joints indicating work parts before welding, etc. 4. Practicing AutoCAD or similar graphics softwares and making orthographic and isometric projections of different components.
5		Machine Drawing-II (PC-ME592)	1. Projection and Isometric Drawing of Machine components Fasteners: Drawings of various views of Screw threads, metric and BSW threads, Square thread and multi start threads. Nut bolts, Washers, Setscrew, Locknuts and foundation bolts. Riveted joints: Forms and proportions of river heads, Different views of different types of riveted Lap and Butt joints. 2. Drawings of various views of Shaft joints: Cotter joint and Knuckle joint. Keys & Shaft coupling: Muff,

			Flanged, Flexible, Universal and Oldhams coupling. 3. Assignments using graphic software Assembly and detailed drawings: Tool head of a shaping machine; Engine parts: Eccentric, Piston, Cross head and Connecting rod; Valves: Steam stop valve, Anyone of safety, relief and non-return valves; Solid modeling of Plummer block
6	Metrology & Measurement	Practice of Manufacturing Processes and Systems Laboratory(PC-ME491)	1. Laboratory modules of pneumatics and/or electro-pneumatics 2. Laboratory modules of hydraulics and/or electro-hydraulics 3. Study of working of Logic Gates practically 4. Simulation of designed pneumatics / hydraulics systems 5. Measurement of surface roughness 6. Measurement of tapered objects using Sine Bar and using balls and rollers, etc. 7. Measurement of threads using three wire method. 8. Measurement of gears. 9. Measurement of bore diameter using micrometer and gauges 10. Measurement of angles using bevel vernier protractor 11. Statistical process control system to apply to measured dimension of samples 12. Practicing different gauges to assess angles, thread, internal and external radius, etc.
7	Applied Thermodynamics & Heat Transfer Laboratory	Mechanical Engineering Laboratory (Thermal) I: (PC-ME591)	1. Measurement of coefficient of discharge of given Orifice and Venturimeters 2. Determination of the density & viscosity of an oil and friction factor of oil flow in a pipe 3. Determination of the performance characteristics of a centrifugal pump 4. Determination of the performance characteristics of Pelton Wheel 5. Determination of the performance characteristics of a Francis Turbine 6. Determination of the performance characteristics of a Kaplan Turbine 7. Determination of the thermal conductivity and specific

			heat of given objects. 8. Determination of the calorific value of a given fuel and its flash & fire point. 9. Determination of the p-V diagram and the performance of a 4-stroke diesel engine 10. Determination of the convective heat transfer coefficient for flow over a heated plate 11. Determination of the emissivity of a given sample 12. Determination of the performance characteristics of a vapour compression system.
8	Fluid Mechanics And Hydraulic Machine Laboratory	Fluid Mechanics Laboratory (CE (ES) 491)	1. Introduction to fluid mechanics 2. Calibration of Notches 3. Calibration of Orifice Meter 4. Determination of Hydraulic Coefficient of an Orifice. 5. Performance on Centrifugal Pump 6. Performance Test on Reciprocating Pump 7. Determination of Minor Losses in Pipes due to Sudden Enlargement and Sudden Contraction 8. Performance Test on Pelton Wheel Turbine 9. Measurement of water surface profile for flow over Broad crested weir
9	Applied Mechanics Laboratory & Materials Testing Laboratory	Mechanical Engineering Laboratory (Design) II (PC-ME691)	1. Uniaxial tension test on mild steel rod 2. Torsion test on mild steel rod 3. Impact test on a metallic specimen 4. Brinnell/ Vickers and Rockwell hardness tests on metallic specimens 5. Bending deflection test on beams 6. Strain measurement using Rosette strain gauge, or like. 7. Microscopic examination of heat-treated and untreated metallic samples. 8. Determination of velocity ratios of simple, compound, epicyclic and differential gear trains. 9. Studying kinematics of four bar, slider crank, crank rocker, double crank, double rocker and oscillating cylinder mechanisms. 10. Studying kinematics of typical mechanisms like pantograph, some straight line motion mechanisms,

			wiper, drafter, etc. 11. Motion studies of different cams & followers. 12. Single degree of freedom Spring-mass-damper system: determination of natural frequency and damping coefficient. 13. Determination of torsional natural frequency of single and double rotor systems undamped and damped natural frequencies. 14. Studying machine vibration using sensor. 15. Solving simple balancing problems experimentally
10		Solid Mechanics Laboratory (CE (ES) 492)	1. Tension test on Structural Materials: Mild Steel and Tor steel (HYSD bars) 2. Bending Test on Mild Steel 3. Torsion Test on Mild Steel Circular Bar 4. Hardness Tests on Ferrous and Non-Ferrous Metals: Brinnel and Rockwell Tests 5. Test on closely coiled helical spring 6. Impact Test: Izod and Charpy 7. Demonstration of Fatigue Test

Computer Science & Engineering

Sl No	Lab Name	Equipment	Experiment
1	Lab 1	29 computers	Programming for problem solving, Design and Analysis of Algorithm, Software Engineering, Data Structure.
2.	Lab 2	23 computers	Language Lab
3.	Lab 4	30 computers	IT workshop, Computer organization, Computer Architecture.
4.	Lab 5	30 computers	Operating system, Computer network
5.	Lab 6	30 computers	DBMS, Object oriented programming, Numerical Methods
6.	Lab 7	30 computers	Project, Design Lab

COMPUTER-aided CIVIL ENGINEERING DRAWING (CE (ES) 392)		
SL	**TITLE OF EXPERIMENT**	**EQUIPMENTS/APPARATUS**
1	SYMBOLS & SIGN CONVENTIONS	COMPUTER, AUTO CAD 2007
2	MASONARY BOND	
3	BUILDING DRAWING	

FLUID MECHANICS LABORATORY (CE (ES) 491)		
SL	**TITLE OF EXPERIMENT**	**EQUIPMENTS/APPARATUS**
1	Calibration of Notches	V-NOTCH, RECTANGULAR NOTCH & WEIRS
2	Calibration of Orifice Meter	ORIFICE METER
3	Determination of Hydraulic Coefficient of an Orifice	ORIFICEMETER
4	Performance on Centrifugal Pump	CENTRIFUGAL PUMP
5	Performance Test on Reciprocating Pump	RECIPROCATING PUMP
6	Determination of Minor Losses in Pipes due to Sudden Enlargement and Sudden Contraction	FRICTION APPARATUS
7	Performance Test on Pelton Wheel Turbine	PELTON WHEEL TURBINE

SOLID MECHANICS LABORATORY (CE (ES) 492		
SL	**TITLE OF EXPERIMENT**	**EQUIPMENTS/APPARATUS**
1	Tension test on Structural Materials: Mild Steel and Tor steel (HYSD bars)	UTM
2	Bending Test on Mild Steel	UTM
3	Torsion Test on Mild Steel Circular Bar	TORSION TESTING MACHINE
4	Hardness Tests on Ferrous and Non-Ferrous Metals: Brinnel and Rockwell Tests	ROCKWELL CUM BRINELL HARDNESS TESTER
5	Test on closely coiled helical spring	SPRING TESTING MACHINE
6	Impact Test: Izod and Charpy	IMPACT TESTING MACHINE
7	Demonstration of Fatigue Test	FATIGUE MACHINE

SURVEYING & GEOMATICS LABORQATORY (CE PC 493)		
SL	**TITLE OF EXPERIMENT**	**EQUIPMENTS/APPARATUS**
1	TRAVERSE SURVEY BY PRISMATIC COMPASS	PRISMATIC COMPASS, TRIPOD STAND, TAPE & RANGING ROD, OPTICAL SQUARE
2	THEODOLITE SURVEYING	THEODOLITE, TRIPOD STAND, RANGING ROD, PLUMB BOB
3	DIFFERENT LEVELLING USING DUMPY LEVEL	DUMPY LEVEL, TRIPOD STAND, PLUMB BOB, LEVELLING STAFF, TAPE & RANGING ROD.
4	TOTAL STATION SURVEY	TOTAL STATION, TRIPOD STAND, PLUMB BOB & PRISM POLE

- **CE (ES)493: ENGINEERING GEOLOGY LABORATORY- NOT AVAILABLE**

	CONCRETE TECHNOLOGY LABORATORY (CE PC 494)	
SL	**TITLE OF EXPERIMENT**	**EQUIPMENTS/APPARATUS**
1	COMPRESSION TEST ON CONCRETE	COMPRESSION TESTING MACHINE
2	SPLIT TENSILE STRENGTH TEST OF CONCRETE	COMPRESSION TESTING MACHINE
3	SPECIFIC GRAVITY OF CEMENT	DENSITY BOTTLE
4	SPECIFIC GRAVITY OF FINE & COARSE AGGREGATE	PYCNOMETER, WIRE & STEEL BASKET, OVEN DRYING MACHINE
5	WORKABILITY TEST	SLUMP CONE, COMPACTING FACTOR APPARATUS
6	BULKING OF SAND	CYLINDRICAL MEASURE
7	FINENESS MODULUS OF FINE & COARSE AGGREGATE	IS SIEVES
8	FINENESS TEST OF CEMENT	IS 90 micron Sieve

9	NORMAL CONSISITENCY AND INITIAL & FINAL SETTING TIME OF CEMENT	VICAT APPARATUS ASSEMBLY
10	COMPRESSIVE STRENGTH TEST OF CEMENT	COMPRESSION TESTING MACHINE, VIBRATOR MACHINE
11	SOUNDNESS TEST OF CEMENT	LE-CHATELIER'S APPARATUS

SOIL MECHANICS LABORATORY (CE PC 594)		
SL	**TITLE OF EXPERIMENT**	**EQUIPMENTS/APPARATUS**
1	DETERMINATION OF MOISTURE CONTENT	OVEN DRYING MACHINE, WEIGHT MACHINE
2	SPECIFIC GRAVITY OF COHESIVE & COHEIONLESS SOIL	DENSITY BOTTLE & PYCNOMETER
3	IN SITU DENSITY BY CORE CUTTER & SAND REPLACEMENT METHOD	CORE CUTTER, SAND CONE APPARATUS & 9KG RAMMER
4	GRAIN SIZE DISTRIBUTION	SIEVE SHAKER MACHINE & HYDROMETER
5	ATTERBERG'S LIMIT	EVAPORATING DISH, SPATULA & ALUMINIUM CONTAINERS
6	PERMEBAILITY BY CONSTANT AND VARIABLE HEAD PERMEABILITY TEST	PERMEABILITY APPARTUS
7	STANDARD PROCTOR COMPACTION TEST	MOULD, RAMMER
8	UNCONFINED COMPRESSION TEST	UNCONFINED COMPRESSION TESTER
9	DIRECT SHEAR TEST	DIRECT SHEAR TEST APPARATUS
10	VANE SHEAR TEST	VANE SHEAR TEST APPARATUS
11	C.B.R TEST	C.B.R TESTING MACHINE
12	STANDARD PENETRATION TEST	SPT APPARATUS

TRANSPORTATION ENGINEERING LABORATORY (CE PC 596)		
SL	**TITLE OF EXPERIMENT**	**EQUIPMENTS/APPARATUS**
1	SHAPE TEST OF AGGREGATE (FLAKINESS & ELONGATION)	THICKNESS & LENGTH GAUGE, IS SIEVES
2	AGGREGATE IMPACT TEST	IMPACT TESTING MACHINE, IS SIEVES
3	LOS ANGELES ABRASION TEST	L.A ABRASION TESTING MACHINE & IS SIEVES
4	SPECIFIC GRAVITY & WATER ABSORPTION OF AGGREGATE	PYCNOMETER, WIRE & STEEL BASKET, OVEN DRYING MACHINE
5	PENETRATION TEST ON BITUMEN	PENETROMETER
6	SOFTENING POINT TEST ON BITUMEN	RING BALL APPARUTUS, THERMOMETER
7	FLASH & FIRE POINT TEST ON BITUMEN	PENSKY MARTENS APPARATUS,THERMOMETER
8	CBR TEST	C.B.R TESTING MACHINE

ENVIRONMENTAL ENGINEERING LABORATORY (OLD SYLLABUS: CE 791; NEW SYLLABUS CE PC 595)		
SL	**TITLE OF EXPERIMENT**	**EQUIPMENTS/APPARATUS**
1	DISSOLVED OXYGEN IN GIVEN SAMPLE OF WATER	STOPPER BOTTLE, PIPETTE, BURETTE
2	DETERMINATION OF PH VALUE OF A GIVEN SAMPLE	PH METER
3	COMPLEXOMETRIC TITRATION	BURETTE, BEAKER, CONICAL FLASK, PIPETTE
4	ARGENTOMETRIC TITRATION	BURETTE, BEAKER, CONICAL FLASK, PIPETTE, STAND
5	PERCENTAGE OF CHLORINE IN BLEACHING POWDER	BURETTE, BEAKER, CONICAL FLASK & PIPETTE
6	RESIDUAL CHLORINE IN WATER	BURETTE, BEAKER, CONICAL FLASK & PIPETTE

Computing Facilities	
Internet Bandwidth	400 mbps
Number and configuration of System	210 nos
Total number of system connected by LAN	210 nos
Total number of system connected by WAN	230 nos
Major software packages available	21 nos
Special purpose facilities available	Yes
Facilities for conduct of classes/courses in online mode	Yes
Innovation Cell	Yes
Social Media Cell	Yes

List of facilities available	
Games and Sports Facilities	Yes (Outdoor game- Cricket, Football, Basketball, Badminton) (Indoor Game- Carrom, Chess, Gymnasium)
Extra-Curricular Activities	Yes
Soft Skill Development Facilities	Yes

Teaching Learning Process: As per the curriculum structure of the Mulana Abul Kalam Azad University of Technology (MAKAUT), West Bengal. (Online and Off line)
Syllabus

Maulana Abul Kalam Azad University of Technology, West Bengal

(Formerly West Bengal University of Technology)

Syllabus for B. Tech in Civil Engineering

(Applicable from the academic session 2018-2019)

Curriculum Structure

Semester III (Second year)

Sl. No.	Category	Code	Course Title	Hours per week			Credits
				L	T	P	
Theory							
1	Basic Science courses	CE(BS)301	Biology for Engineers	2	1	0	3
2	Engineering Science Courses	CE(ES)301	Engineering Mechanics	3	1	0	4
3	Engineering Science Courses	CE(ES)302	Energy Science & Engineering	1	1	0	2
4	Basic Science courses	CE(BS)301	Mathematics-III (Transform & Discrete Mathematics)	2	0	0	2
5	Humanities and Social Sciences including Management courses	CE(HS)301	Humanities-I (Effective Technical Communication)	3	0	0	3
6	Humanities and Social Sciences including Management courses	CE(HS)302	Introduction to Civil Engineering	1	1	0	2
						Theory credits	**16**
Practical/ Sessional							
1	Engineering Science Courses	CE(ES)391	Basic Electronics	1	0	2	2
2	Engineering Science Courses	CE(ES)392	Computer-aided Civil Engineering Drawing	1	0	2	2
3	Engineering Science Courses	CE(ES)393	Life Science	1	0	2	2
						Practical credits	**6**
						Total credits	**22**

Maulana Abul Kalam Azad University of Technology, West Bengal

(Formerly West Bengal University of Technology)

Syllabus for B. Tech in Civil Engineering

(Applicable from the academic session 2018-2019)

Semester IV (Second year]

Sl. No.	Category	Code	Course Title	Hours per week			Credits
				L	T	P	
Theory							
1	Engineering Science Courses	CE(ES)401	Introduction to Fluid Mechanics	2	0	0	2
2	Engineering Science Courses	CE(ES)402	Introduction to Solid Mechanics	2	0	0	2
3	Professional Core courses	CE(PC)401	Soil Mechanics – I	2	1	0	3
4	Professional Core courses	CE(PC)402	Environmental Engineering -I	2	1	0	3
5	Professional Core courses	CE(PC)403	Surveying & Geomatics	2	1	0	3
6	Professional Core courses	CE(PC)404	Concrete Technology	2	1	0	3
7	Humanities and Social Sciences including Management courses	CE(HS)401	Civil Engineering - Societal & Global Impact	2	0	0	2
8	Mandatory Courses (non-credit)	CE(MC)401	Management I (Organizational Behavior)	2	0	0	0
						Theory credits	**18**
Practical/ Sessional							
1	Professional Core courses	CE(ES)491	Fluid Mechanics Laboratory	0	0	2	1
2	Professional Core courses	CE(ES)492	Solid Mechanics Laboratory	0	0	2	1
3	Professional Core courses	CE(ES)493	Engineering Geology Laboratory	0	0	2	1
4	Professional Core courses	CE(PC)493	Surveying & Geomatics	0	0	2	1
5	Professional Core courses	CE(PC)494	Concrete Technology Laboratory	0	0	2	1
						Practical credits	**5**
						Total credits	**23**

Maulana Abul Kalam Azad University of Technology, West Bengal

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Syllabus for B. Tech in Civil Engineering

(Applicable from the academic session 2018-2019)

Semester V (Third year]

Sl. No.	Category	Code	Course Title	Hours per week			Credits
				L	T	P	
Theory							
1	Professional Core courses	CE(PC)501	Design of RC Structures	2	1	0	3
2	Professional Core courses	CE(PC)502	Engineering Hydrology	2	1	0	3
3	Professional Core courses	CE(PC)503	Structural Analysis – I	2	1	0	3
4	Professional Core courses	CE(PC)504	Soil Mechanics – II	2	1	0	3
5	Professional Core courses	CE(PC)505	Environmental Engineering – II	2	1	0	3
6	Professional Core courses	CE(PC)506	Transportation Engineering	2	1	0	3
7	Mandatory courses (non-credit)	CE(MC)501	Constitution of India/ Essence of Indian Knowledge Tradition	-	-	-	0
						Theory credits	**18**
Practical/ Sessional							
1	Professional core courses	CE(PC)591	RC Design Sessional	0	0	2	1
2	Professional core courses	CE(PC)594	Soil Mechanics Laboratory	0	0	2	1
3	Professional core courses	CE(PC)595	Environmental Engineering Laboratory	0	0	2	1
4	Professional core courses	CE(PC)596	Transportation Engineering Laboratory	0	0	2	1
5	Professional core courses	CE(PC)597	Computer Application in CE	0	0	2	1
						Practical credits	**5**
						Total credits	**23**

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Syllabus for B. Tech in Civil Engineering

(Applicable from the academic session 2018-2019)

Semester VI (Third year]

Sl. No.	Category	Code	Course Title	Hours per week			Credits
				L	T	P	
Theory							
1	Professional Core courses	CE(PC)601	Construction Engineering & Management	2	0	0	2
2	Professional Core courses	CE(PC)602	Engineering Economics, Estimation & Costing	2	0	0	2
3	Professional Core courses	CE(PC)603	Water Resources Engineering	2	0	0	2
4	Professional Core courses	CE(PC)604	Design of Steel Structures	2	0	0	2
5	Professional Elective courses	CE(PE)601	Elective-I	2	0	0	2
6	Professional Elective courses	CE(PE)602	Elective-II	2	0	0	2
7	Open Elective courses	CE(OE)601	Open Elective-I (Humanities)	2	0	0	2
						Theory credits	**14**
Practical/ Sessional							
1	Professional Core courses	CE(PC)693	Water Resource Engineering Laboratory	0	0	2	1
2	Professional Core courses	CE(PC)694	Steel Structure Design Sessional	0	0	2	1
3	Professional Core courses	CE(PC)695	Quantity Survey Estimation and Valuation Sessional	0	1	2	2
						Practical credits	**4**
						Total credits	**18**

CE(PE)601 (Elective-I)	**CE(PE)602 (Elective-II)**
601A: Stability of Slopes	602A : Building Construction Practice
601B: **Foundation Engineering**	602B : **Structural Analysis-II**
601C: Ground Improvement Technique	602C : Industrial Structures
CE(OE)601 (Open Elective-I)	
601A: Soft Skills and Interpersonal Communication – I 601B: Introduction to Philosophical Thoughts	

Semester VII (Fourth year]

Sl. No.	Category	Code	Course Title	Hours per week			Credits
				L	T	P	
Theory							
1	Open Elective courses	CE(OE)701	Open Elective-II	2	0	0	2
2	Professional Elective courses	CE(PE)701	Elective III	2	1	0	3
3	Professional Elective courses	CE(PE)702	Elective IV	2	1	0	3
4	Professional Elective courses	CE(PE)703	Elective V	2	1	0	3
5	Professional Elective courses	CE(PE)704	Elective-VI	2	1	0	3
6	Professional Elective courses	CE(PE)705	Elective-VII	2	0	0	2
						Theory credits	**16**
Practical/ Sessional							
1	Internship	CE(IN)791	Industrial Internship (after sixth semester)				1
2	Project	CE(PROJ)792	Project-1 (Project work)	0	0	10	5
						Practical credits	**6**
						Total credits	**22**

CE(OE)701 (Open Elective-II)	**CE(PE)701 (Elective-III)**
A: Metro Systems & Engineering	701A: Computational Hydraulics
B: ICT for Development	701B: Disaster Preparedness and Planning
C: Cyber Law & Ethics	701C: Hydraulic Structure
CE(PE)702 (Elective-IV)	**CE(PE)703 (Elective-V)**
702A: Prestressed Concrete	703A: Air and Noise Pollution and Control
702B: Repairs & Rehabilitation of Structures	703B: Physico-Chemical Processes for Water and Wastewater Treatment
702C: Finite Element Method	703C: Water and Air Quality Modelling
CE(PE)704 (Elective-VI)	**CE(PE)705 (Elective-VII)**
704A: Structural Dynamics	705A: Railway and Airport Engineering
704B: Advanced Structural Analysis	705B: Pavement Design
704C: Coastal Hydraulics and Sediment Transport	705C: Transport System Planning

Semester VIII (Fourth year]

Sl. No.	Category	Code	Course Title	Hours per week			Credits
				L	T	P	
Theory							
1	Humanities and Social Sciences including Management courses	CE(HS)801	Professional Practice, law & Ethics	2	0	0	2
2	Professional Elective Courses	CE(PE)801	Elective VIII	2	0	0	2
3	Open Elective courses	CE(OE)801	Open Elective-III	2	0	0	2
4	Open Elective courses	CE(OE)802	Open Elective-IV	2	0	2	2
						Theory credits	**8**
Practical/ Sessional							
1	Comprehensive Viva Voce	CE(CV)891	Comprehensive Viva Voce				1
2	Project	CE(PROJ)892	Project-2 (Continued from VII)	0	0	10	5
						Practical credits	**6**
						Total credits	**14**

CE(PE)801 (Elective-VIII)	
801A: GIS & Remote Sensing 801B: Rock Mechanics 801C: Environmental laws and Policy 801D: Pavement Materials and Design	
CE(OE)801 (Open Elective-III)	**CE(OE)802 (Open Elective-IV)**
A: Human Resource Development and Organizational Behavior **B: Bridge Engineering** C: Deep Foundations D: Groundwater Contamination	A: Soft Skills and Personality Development B: Earthquake Engineering C: Urban Transport Planning D: Environmental Impact Assessment and Life cycle Analysis

TOTAL CREDITS – [38 +(22+23)+(23+18)+(21+15)]=160

SEM 1 & SEM 2	SEM3	SEM4	SEM5	SEM6	SEM7	SEM8	Total
38	22	23	23	18	21	15	160

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Syllabus for B. Tech in Computer Science & Engineering

(Applicable from the academic session 2018-2019)

Curriculum Structure

Semester III (Second year)							
Sl. No.	Type of course	Code	Course Title	Hours per week			Credits
				L	T	P	
Theory							
1	Engineering Science Course	ESC 301	Analog and Digital Electronics	3	0	0	3
2	Professional Core Courses	PCC-CS301	Data Structure & Algorithms	3	0	0	3
3	Professional Core Courses	PCC-CS302	Computer Organisation	3	0	0	3
4	Basic Science course	BSC 301	Mathematics-III (Differential Calculus)	2	0	0	2
5	Humanities & Social Sciences including Management courses	HSMC 301	Economics for Engineers (Humanities-II)	3	0	0	3
Practical							
6	Professional Core Courses	PCC-CS393	IT Workshop (Sci Lab/MATLAB/Python/R)	0	0	4	2
7	Engineering Science Course	ESC 391	Analog and Digital Electronics	0	0	4	2
8	Professional Core Courses	PCC-CS391	Data Structure & Algorithms	0	0	4	2
9	Professional Core Courses	PCC-CS392	Computer Organisation	0	0	4	2
			Total credits				22

Semester IV (Second year)							
Sl. No.	Type of course	Code	Course Title	Hours per week			Credits
				L	T	P	
Theory							
1	Professional Core Courses	PCC-CS401	Discrete Mathematics	3	1	0	4
2	Professional Core Courses	PCC-CS 402	Computer Architecture	3	0	0	3
3	Professional Core Courses	PCC-CS403	Formal Language & Automata Theory	3	0	0	3

4	Professional Core Courses	PCC-CS404	Design & Analysis of Algorithms	3	0	0	3
5	Basic Science courses	BSC 401	Biology	2	1	0	3
6	Mandatory Courses	MC401	Environmental Sciences	1	-	-	0
Practical							
7	Engineering Science Course	PCC-CS 492	Computer Architecture	0	0	4	2
8	Professional Core Courses	PCC-CS494	Design & Analysis of Algorithms	0	0	4	2
						Total credits	**20**

Semester V (Third year)							
Sl. No.	**Type of course**	**Code**	**Course Title**	**Hours per week**			**Credits**
				L	**T**	**P**	
1	Engineering Science Course	ESC501	Software Engineering	3	0	0	3
2	Professional Core Courses	PCC-CS501	Compiler Design	3	0	0	3
3	Professional Core Courses	PCC-CS502	Operating Systems	3	0	0	3
4	Professional Core Courses	PCC-CS503	Object Oriented Programming	3	0	0	3
5	Humanities &Social Sciences including Management courses	HSMC-501	Introduction to Industrial Management (Humanities III)	3	0	0	3
6	Professional Elective	PEC-IT 501A/B/C/D	(Elective-I) Theory of	3	0	0	3

	courses		Computation/Artificial Intelligence/ Advanced Computer Architecture/ Computer Graphics				
7	Mandatory Courses	MC- CS501	Constitution of India/ Essence of Indian Knowledge Tradition	-	-	-	0
Practical							
8	Professional Core Courses	ESC-591	Software Engineering		0	4	2
9	Professional Core Courses	PCC-CS592	Operating Systems		0	4	2
10	Professional Core Courses	PCC-CS593	Object Oriented Programming		0	4	2
			Total credits				**24**

Semester VI (Third year)							
Sl. No.	**Type of course**	**Code**	**Course Title**	**Hours per week**			**Credits**
				L	**T**	**P**	
1	Professional Core Courses	PCC-CS601	Database Management Systems	3	0	0	3
2	Professional Core Courses	PCC-CS602	Computer Networks	3	0	0	3
3	Professional Elective courses	PEC-IT601A/B/C/D	(Elective-II) Advanced Algorithms/ Distributed Systems/ Signals & Systems / Image Processing	3	0	0	3
4	Professional Elective courses	PEC-IT602A/B/C/D	(Elective-III) Parallel and Distributed Algorithms/ Data Mining/Human Computer Interaction/Pattern Recognition	3	0	0	3

5	Open Elective courses	OEC-IT601A/B	(Open Elective-) Numerical Methods/ Human Resource Development and Organizational Behavior	3	0	0	3
6	Project	PROJ-CS601	Research Methodology	3	0	0	3
Practical							
7	Professional Core Courses	PCC-CS691	Database Management Systems	0	0	4	2
8	Professional Core Courses	PCC-CS692	Computer Networks	0	0	4	2
			Total credits				**22**

Semester VII (Fourth year]							
Sl. No.	**Type of course**	**Code**	**Course Title**	**Hours per week**			**Credits**
				L	**T**	**P**	
1	Professional Elective courses	PEC-CS 701A/B/C/D/E	(Elective-IV) Quantum Computing/ Cloud Computing/ Digital Signal Processing/Multi-agent Intelligent Systems/Machine learning	3	0	0	3
2	Professional Elective courses	PEC-CS 702A/B/C/D/E	(Elective-V) Neural Networks and Deep Learning/ Soft Computing/ Ad-Hoc and Sensor Networks/Information Theory and Coding/Cyber Security	3	0	0	3
3	Open Elective courses	OEC-CS 701A/B/C	(Open Elective-II) Operations Research/Multimedia Systems/Introduction to Philosophical Thoughts	3	0	0	3
4	Humanities &Social	HSM	Project Management and	2	1	0	3

	Sciences including Management courses	C 701	Entrepreneurship				
5	Project	PROJ-CS781	Project-II	0	0	12	6
			Total credits				**18**

Semester VIII (Fourth year)							
[Summer Industry Internship]							
Sl. No.	**Type of course**	**Code**	**Course Title**	**Hours per week**			**Credits**
				L	**T**	**P**	
1	Professional Elective courses	PEC-CS801A/B/C/D/E	(Elective-VI) Signals and Networks/Cryptography & Network Security/ Speech and Natural Language Processing/ Web and Internet Technology/Internet of Things	3	0	0	3
2	Open Elective courses	OEC-CS801A/B/C/D/E	Open Elective-III Big Data Analysis/Cyber Law and Ethics/ Mobile Computing/Robotics/Soft Skill & Interpersonal Communication	3	0	0	3
3	Open Elective courses	OEC-CS802A/B/C	(Open Elective-IV) E-Commerce and ERP/Micro-electronics and VLSI Design/Economic Policies in India	3	0	0	3
4	Project	PROJ-CS881	Project-III	0	0	12	6
			Total credits				**15**

BACHELOR OF TECHNOLOGY
IN
MECHANICAL ENGINEERING

(Applicable from the academic session 2018-2019)

Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly West Bengal University of Technology)
Haringhata-741249, Nadia, West Bengal, INDIA

Maulana Abul Kalam Azad University of Technology, West Bengal

(Formerly West Bengal University of Technology)

BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING

(Effective from academic session 2018-19)

Curriculum Structure

First Year First Semester							
Mandatory Induction Program- 3 weeks duration							
Sl No.	**Category**	**Subject Code**	**Subject Name**	**Total No. of contact hours**			**Credits**
				L	**T**	**P**	
Theory							
1	Basic Science course	BS-PH101	Physics-I	3	1	0	4
2	Basic Science course	BS-M102	Mathematics –IB	3	1	0	4
3	Engineering Science Courses	ES-EE101	Basic Electrical Engineering	3	1	0	4
	Total Theory			**9**	**3**	**0**	**12**
Practical							
1	Basic Science course	BS-PH191	Physics-I Laboratory	0	0	3	1.5
2	Engineering Science Courses	ES-EE191	Basic Electrical Engineering Laboratory	0	0	2	1
3	Engineering Science Courses	ES-ME192	Workshop/Manufacturing Practices	1	0	4	3
	Total Practical			**1**	**0**	**9**	**5.5**
			Total of First Semester	**10**	**3**	**9**	**17.5**

First Year Second Semester							
Sl No.	**Category**	**Subject Code**	**Subject Name**	**Total No. of contact hours**			**Credits**
				L	**T**	**P**	
Theory							
1	Basic Science course	BS-CH201	Chemistry-I (Gr-A)	3	1	0	4
2	Basic Science course	BS-M202	Mathematics –IIB	3	1	0	4
3	Engineering Science Courses	ES-CS201	Programming for Problem Solving	3	0	0	3
4	Humanities and Social Sciences including Management courses	HM-HU201	English	2	0	0	2
	Total Theory			**11**	**2**	**0**	**13**
Practical							
1	Basic Science course	BS-CH291	Chemistry-I Laboratory	0	0	3	1.5
2	Engineering Science Courses	ES-CS291	Programming for Problem Solving	0	0	4	2
3	Engineering Science Courses	ES-ME291	Engineering Graphics & Design (Gr-A)	1	0	4	3
4	Humanities and Social Sciences including Management courses	HM-HU291	Language Laboratory	0	0	2	1
	Total Practical			**1**	**0**	**13**	**7.5**
			Total of Second Semester	**12**	**2**	**13**	**20.5**

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Curriculum Structure

Second Year Third Semester							
Sl No.	**Category**	**Subject Code**	**Subject Name**	**Total No. of contact hours**			**Credits**
				L	**T**	**P**	
Theory							
1	Basic Science course	BS-M301	Mathematics III	3	1	0	4
2	Basic Science course	BS-BIO301	Biology	3	0	0	3
3	Engineering Science Courses	ES-ECE301	Basic Electronics Engineering	3	0	0	3
4	Engineering Science Courses	ES-ME301	Engineering Mechanics	3	1	0	4
5	Professional Core courses	PC-ME301	Thermodynamics	3	1	0	4
6	Professional Core courses	PC-ME302	Manufacturing Processes	4	0	0	4
	Total Theory			**19**	**3**	**0**	**22**
Practical							
1	Professional Core courses	PC-ME391	Practice of Manufacturing Processes	0	0	3	1.5
	Total Practical			**0**	**0**	**3**	**1.5**
			Total of Third Semester	**19**	**3**	**3**	**23.5**

Second Year Fourth Semester							
Sl No.	**Category**	**Subject Code**	**Subject Name**	**Total No. of contact hours**			**Credits**
				L	**T**	**P**	
Theory							
1	Engineering Science Courses	ES-ME401	Materials Engineering	3	0	0	3
2	Professional Core courses	PC-ME401	Applied Thermodynamics	3	1	0	4
3	Professional Core courses	PC-ME402	Fluid Mechanics & Fluid Machines	3	1	0	4
4	Professional Core courses	PC-ME403	Strength of Materials	3	1	0	4
5	Professional Core courses	PC-ME404	Metrology andInstrumentation	3	1	0	4
	Total Theory			**15**	**4**	**0**	**19**
Practical							
1	Professional Core courses	PC-ME491	Practice of Manufacturing Processes and Systems Laboratory	0	0	3	1.5
2	Professional Core courses	PC-ME492	Machine Drawing- I	0	0	3	1.5
3	Mandatory courses	MC 481	Environmental Science	-	-	2	0
	Total Practical			**0**	**0**	**8**	**3**
			Total of Fourth Semester	**15**	**4**	**8**	**22**

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Curriculum Structure

Third Year Fifth Semester							
Sl No.	**Category**	**Subject Code**	**Subject Name**	**Total No. of contact hours**			**Credits**
				L	**T**	**P**	
Theory							
1	Professional Core courses	PC-ME501	Heat Transfer	3	1	0	4
2	Professional Core courses	PC-ME502	Solid Mechanics	3	1	0	4
3	Professional Core courses	PC-ME503	Kinematics & Theory of Machines	3	1	0	4
4	Humanities and Social Sciences including Management courses	HM-HU501	Effective Technical Communication	3	0	0	3
5	Mandatory courses	MC501	Essence of Indian Knowledge Tradition	-	2	-	0
	Total Theory			**12**	**5**	**0**	**15**
Practical/ Sessional							
1	Professional Core courses	PC-ME591	Mechanical Engineering Laboratory I (Thermal)	0	0	3	1.5
2	Professional Core courses	PC-ME592	Machine Drawing-II	0	0	3	1.5
3	Project (Summer internship)	PW-ME581	Project-I (30 hrs. Total)	0	0	2	1
	Total Practical			**0**	**0**	**8**	**4**
			Total of Fifth Semester	**12**	**5**	**8**	**19**

Third Year Sixth Semester							
Sl No.	**Category**	**Subject Code**	**Subject Name**	**Total No. of contact hours**			**Credits**
				L	**T**	**P**	
Theory							
1	Professional Core courses	PC-ME601	Manufacturing Technology	4	0	0	4
2	Professional Core courses	PC-ME602	Design of Machine Elements	3	1	0	4
3	Professional Elective courses	PE-ME601	Elective-I	3	0	0	3
4	Professional Elective courses	PE-ME602	Elective-II	3	0	0	3
5	Humanities and Social Sciences including Management courses	HM-HU601	Operations Research	3	0	0	3
6	Mandatory courses	MC601	Constitution of India	-	2	-	0
	Total Theory			**16**	**3**	**0**	**17**
Practical/ Sessional							
1	Professional Core courses	PC-ME691	Mechanical Engineering Laboratory II (Design)	0	0	3	1.5
2	Project (or Summer internship)	PW-ME681	Project-II (90 hrs. Total)	0	0	4	2
	Total Practical			**0**	**0**	**7**	**3.5**
			Total of Sixth Semester	**16**	**3**	**7**	**20.5**

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Curriculum Structure

Fourth Year Seventh Semester							
Sl No.	**Category**	**Subject Code**	**Subject Name**	**Total No. of contact hours**			**Credits**
				L	**T**	**P**	
Theory							
1	Professional Core courses	PC-ME701	Advanced Manufacturing Technology	3	0	0	3
2	Professional Elective courses	PE-ME701	Elective III	3	0	0	3
3	Professional Elective courses	PE-ME702	Elective-IV	3	0	0	3
4	Open Elective courses	OE-ME 701	Open Elective- I	3	0	0	3
5	Humanities and Social Sciences including Management courses	HM-HU701	Economics for Engineers	2	0	0	2
	Total Theory			**14**	**0**	**0**	**14**
Practical/ Sessional							
1	Professional Core courses	PC-ME791	Mechanical Engineering Laboratory III (Manufacturing)	0	0	3	1.5
2	Project	PW-ME781	Project-III	0	0	6	3
	Total Practical			**0**	**0**	**9**	**4.5**
			Total of Seventh Semester	**14**	**0**	**9**	**18.5**

Fourth Year Eighth Semester							
Sl No.	**Category**	**Subject Code**	**Subject Name**	**Total No. of contact hours**			**Credits**
				L	**T**	**P**	
Theory							
1	Professional Elective courses	PE-MES01	Elective V	3	0	0	3
2	Professional Elective courses	PE-MES02	Elective VI	3	0	0	3
3	Open Elective courses	OE-ME S01	Open Elective-II	3	0	0	3
4	Open Elective courses	OE-ME S02	Open Elective- III	3	0	0	3
	Total Theory			**12**	**0**	**0**	**12**
Practical/ Sessional							
1	Project	PW-MESS1	Project-IV	0	0	10	5
2	Professional Core courses	PW-MESS2	Comprehensive viva	0	0	0	1.5
	Total Practical			**0**	**0**	**10**	**6.5**
			Total of Eighth Semester	**12**	**0**	**10**	**18.5**
Total Credit							**160**

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Curriculum Structure

List of Professional Electives

There are six Professional Elective Course Papers in Semester VI, VII and VIII as follows:
(Elective-I) PE-ME601, (Elective-II) PE-ME602, (Elective-III) PE-ME701, (Elective-IV) PE-ME702, (Elective-V) PE-MES01 and (Elective VI) PE-MES02.

Students are to choose one paper for each of the Professional Elective Courses specified in the curriculum structure of a Semester from the following list of Professional Elective Papers. Selection of a paper should be non-repetitive. If a student chooses the paper, **Internal Combustion Engines and Gas Turbines (Code: A1)** as a **Professional Elective I in Semester VI**, its paper code will be **PE-ME601A1**. Similarly, in case **Mechanical Vibration (Code: B3)** is chosen by one in **Semester VII as Professional Elective-IV**, its paper Code will be **PE-ME702B3**.

Subject Code	Subject name
Thermo-Fluid Group	
A1	Internal Combustion Engines and Gas Turbines
A2	Automobile Engineering
A3	Gas Dynamics and Jet Propulsion
A4	Refrigeration and Air Conditioning
A5	Turbo Machinery
A6	Fluid Power Control
A7	Advanced Fluid Mechanics
A8	Analysis and Performance of Fluid Machines
A9	Computational Fluid Dynamics
A10	Power Plant Engineering
A11	Cryogenics
A12	Introduction to Wind Engineering
A13	Elements of Atmospheric Fluid Dynamics
Design Group	
B1	Composite Materials
B2	Selection and Testing of Materials
B3	Mechanical Vibration
B4	Tribology
B5	Finite Element Analysis
B6	Mechatronics
Manufacturing Group	
C1	Advanced Welding Technology
C2	Quantity Production Methods
C3	3D Printing and Design
C4	Micro and Nano Manufacturing
C5	CAD/CAM
C6	Robotics
C7	Material Handling
C8	Principles and Practices of Management
C9	Process Planning and Cost Estimation
C10	Maintenance Engineering

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Curriculum Structure

List of Open Electives

There are three Open Elective Course Papers in Semester VII and VIII as follows:
(Open Elective-I) OE-ME701, (Open Elective-II) OE-MES01, and (Open Elective-III) OE-MES02.

Students are to choose one paper for each of the Open Elective Courses specified in the curriculum structure of a Semester from the following list of Open Elective Papers. Selection of a paper should be non-repetitive. If a student chooses the paper, **Industrial Engineering (Code: A)** as an **Open Elective-I in Semester VII**, its paper code will be **OE-ME701A**. Similarly, in case **Safety and Occupational Health (Code: F)** is chosen by one in **Semester VIII as Open Elective-III**, its paper Code will be **OE-ME802F**.

Subject Code	Subject Name
A	Industrial Engineering
B	Total Quality Management
C	Project Management
D	Entrepreneurship Development
E	Introduction to Product Design and Development
F	Safety and Occupational Health
G	Industrial Pollution and Control
H	Energy Conservation and Management
I	Non-conventional Energy Sources
J	Waste to Energy- An Overview
K	Biomechanics and Biomaterials
L	Computational Methods in Engineering
M	Automation & Control
N	Internet of Things (IoT)
O	Artificial Intelligence (AI)
P	Block Chain
Q	Cyber Security
R	Quantum Computing
S	Data Sciences
T	Machine Learning
U	Virtual Reality (VR)
V	Water Resource Engineering

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Syllabus for B. Tech in Electrical Engineering

(Applicable from the academic session 2018-2019)

3rd Semester

Theory:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 301	Electric Circuit Theory	3	1	0	4	4
2	PC-EE 302	Analog Electronics	3	0	0	3	3
3	PC-EE 303	Electromagnetic field theory	3	0	0	3	3
4	ES-ME 301	Engineering Mechanics	3	0	0	3	3
5	BS-M 301	Mathematics-III	3	0	0	3	3
6	BS-EE301	Biology for Engineers	3	0	0	3	3
7	MC-EE 301	Indian Constitution	3	0	0	3	0
		TOTAL OF SEMESTER:				22	19

Practical / Sessional:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 391	Electric Circuit Theory Laboratory	0	0	2	2	1
2	PC-EE 392	Analog Electronics laboratory	0	0	2	2	1
3	PC-CS 391	Numerical Methods laboratory	0	0	2	2	1
		Total of Practical / Sessional				06	3
TOTAL OF SEMESTER:						28	22

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4th Semester

Theory:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 401	Electric machine-I	3	0	0	3	3
2	PC-EE 402	Digital Electronic	3	0	0	3	3
3	PC-EE 403	Electrical and Electronics Measurement	3	0	0	3	3
4	ES-EE 401	Thermal Power Engineering	3	0	0	3	3
5	HM-EE401	Values and Ethics in profession	3	0	0	3	3
6	MC- EE401	Environmental Science	3	0	0	3	0
		TOTAL OF SEMESTER:				18	15

Practical / Sessional:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 491	Electric Machine-I laboratory	0	0	2	2	1
2	PC-EE 492	Digital Electronics laboratory	0	0	2	2	1
3	PC-EE 493	Electrical and electronic measurement laboratory	0	0	2	2	1
4	ES-ME 491	Thermal Power Engineering laboratory	0		2	2	1
		Total of Practical / Sessional				08	4
TOTAL OF SEMESTER:						26	19

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5th Semester

Theory:

Sl No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 501	Electric machine-II	3	0	0	3	3
2	PC-EE 502	Power System-I	3	0	0	3	3
3	PC-EE 503	Control system	3	0	0	3	3
4	PC-EE 504	Power Electronics	3	0	0	3	3
5	PE-EE 501		3	0	0	3	3
6	OE 501		3	0	0	3	3
		TOTAL OF SEMESTER:				18	18

Practical / Sessional:

Sl No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 591	Electric Machine-II laboratory	0	0	2	2	1
2	PC-EE 592	Power system-I laboratory	0	0	2	2	1
3	PC-EE 593	Control system laboratory	0	0	2	2	1
4	PC-EE 594	Power Electronics laboratory	0	0	2	2	1
		Total of Practical / Sessional				08	4
TOTAL OF SEMESTER:						26	22

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6th Semester

Theory:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 601	Power System-II	3		0	3	3
2	PC-EE-602	Micro processor & micro controller	3	0	0	3	3
3	PE-EE 601		3	0	0	3	3
4	PE-EE 602		3	0	0	3	3
5	OE-601		3	0	0	3	3
6	HM-601		3	0	0	3	3
		TOTAL OF SEMESTER:				18	18

Practical / Sessional:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 691	Power system-II laboratory	0	0	2	2	1
2	PC-EE692	Micro processor & microcontroller laboratory	0	0	2	2	1
2	PC-EE 693	Electrical & Electronic design laboratory	1	0	4	5	3
		Total of Practical / Sessional				09	05
TOTAL OF SEMESTER:						27	23

Summer Internship of 3-week duration after 6th semester. Students will be assessed based on submission of report on internship and presentation in a seminar in 7th semester

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7th Semester

Theory:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 701	Electric Drive	3	0	0	3	3
2	PE-EE 701		3	0	0	3	3
3	OE-701		3	0	0	3	3
4	OE-702		3		0	3	3
5	HM-701		3	0	0	3	3
		TOTAL OF SEMESTER:				15	15

Practical / Sessional:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 791	Electric Drive laboratory	0	0	2	2	1
2	PW-EE 781	Project stage-I	0	0	4	4	2
3	PW-EE782	Seminar	0	0	0	0	1
		Total of Practical / Sessional				06	04
TOTAL OF SEMESTER:						21	19

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8th Semester

Theory:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PC-EE 801	Utilization of Electric Power	3	0	0	3	3
2	PE- EE 801		3	0	0	3	3
3	OE-801		3	0	0	3	3
		TOTAL OF SEMESTER:				09	09

Practical / Sessional:

Sl. No.	CODE	Paper	Contact periods Per week			Total Contact Hrs	Credits
			L	T	P		
1	PW-EE 881	Project stage-II	0	0	16	16	8
		Total of Practical / Sessional				16	08
TOTAL OF SEMESTER:						25	17

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Syllabus for B. Tech in Electronics & Communication Engineering
(Applicable from the academic session 2018-2019)

Curriculum Structure

2nd Year: 3rd Semester

A. Theory							
Sl No.	Field	Theory	Contact Hours/week				Credit Points
			L	T	P	Total	
1.	EC301	Electronic Devices	3	0	0	3	3
2.	EC302	Digital System Design	3	0	0	3	3
3.	EC303	Signals and Systems	3	0	0	3	3
4.	EC304	Network Theory	3	0	0	3	3
5.	ES-CS301	Data Structure & Algorithm (ES)	3	0	0	3	3
6.	BS-M301	Probability & Statistics(BS)	3	0	0	3	3
Total Theory						18	18
B. Practical							
7.	EC391	Electronic Devices Lab.	0	0	2	2	1
8.	EC392	Digital System Design Lab.	0	0	2	2	1
9	ES-CS391	Data Structure Lab(ES)	0	0	2	2	1
			Total Practical			6	3
			Total Credits			24	21
C. Non Credit Course							
	MC381	Environmental Science	0	0	2	2	0

2ndYear: 4th Semester

A. Theory							
Sl No.	Field	Theory	Contact Hours/week				Credit Points
			L	T	P	Total	
1.	EC401	Analog Communication	3	0	0	3	3
2.	EC402	Analog Electronic Circuits	3	0	0	3	3
3.	EC403	Microprocessor &Microcontrollers	3	0	0	3	3
4.	ES-CS401	Design and Analysis of Algorithm(ES)	3	0	0	3	3
5.	BS-M401	Numerical Methods(BS)	2	0	0	2	2
6.	BS-B401	Biology for Engineers	2	1	0	3	3
Total Theory						14	17
B. Practical							
7.	EC491	Analog Communication Lab	0	0	2	2	1
8.	EC492	Analog Electronic Circuits Lab.	0	0	2	2	1
9.	EC493	Microprocessor & Microcontrollers Lab	0	0	2	2	1
10.	BS-M(CS)491	Numerical Methods Lab	0	0	2	2	1
11.	HS-HU481	Soft Skill Development Lab	0	0	2	2	1
Total Practical						10	5
		Total Credits				24	22

Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly West Bengal University of Technology)
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(Applicable from the academic session 2018-2019)

3rd Year: 5th Semester

A. Theory								
Sl No.	Field	Theory	Contact Hours/week				Credit Points
			L	T	P	Total	
1.	EC501	Electromagnetic Waves	3	0	0	3	3
2.	EC502	Computer Architecture	3	0	0	3	3
3.	EC503	Digital Communication & Stochastic Process	3	1	0	4	3.5
4.	EC504	Digital Signal Processing	3	0	0	3	3
5.	PE-EC505	Program Elective I	3	0	0	3	3
6.	OE-EC506 A/B/C/D	Open Elective I	3	0	0	3	3
7	MC-HU501	Effective Technical Communication	0	0	3	3	0
Total Theory						22	18.5
B. Practical							
8.	EC591	Electromagnetic Wave Lab	0	0	2	2	1
9.	EC592	Digital Communication Lab.	0	0	2	2	1
10.	EC593	Digital Signal Processing Lab.	0	0	2	2	1
Total Practical						6	3
Total Credits						28	21.5

3rd Year: 6th Semester

C. Theory							
Sl No.	Field	Theory	Contact Hours/week				Credit Points
			L	T	P	Total	
1.	EC601	Control System & Instrumentation	3	0	0	3	3
2.	EC602	Computer Network	3	0	0	3	3
3.	PE-EC603	Program Elective II	3	0	0	3	3
4.	OE-EC604	Open Elective II	3	0	0	3	3
5.	HS-HU601	Economics for Engineers	3	0	0	3	3
Total Theory						15	15
D. Practical							
6.	EC692	Computer Network Lab.	0	0	2	2	1
7.	EC691	Control System and Instrumentation Lab.	0	0	2	2	1
8.	EC681	Mini Project/ Electronic Design Workshop	0	0	4	4	2
Total Practical						8	4
Total Credits						23	19
9	MC681	Universal Human Values	2	0	0	2	0

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4th Year: 7th Semester

D. Theory							
Sl No.	Field	Theory	Contact Hours/week				Credit Points
			L	T	P	Total	
1.	PE-EC701	Program Elective -3	3	0	0	3	3
2.	PE-EC702	Program Elective -4	3	0	0	3	3
3.	PE-EC703	Program Elective -5	3	0	0	3	3
4.	OE-EC704	Open Elective - 3	3	0	0	3	3
5.	HS-HU701	Principles of Management	2	0	0	2	2
Total Theory						14	14
E. Practical							
6	EC781	Industrial Training	During Semester Break(6th & 7th)				1
7.	EC782	Project Stage – I	0	0	8	8	4
Total Practical						8	5
Total Credits						22	19

4th Year: 8th Semester

E. Theory							
Sl No.	Field	Theory	Contact Hours/week				Credit Points
			L	T	P	Total	
1.	PE-EC801	Program Elective – 6	3	0	0	3	3
2.	PE-EC802	Program Elective - 7	3	0	0	3	3
3.	OE-EC803	Open Elective - 4	3	0	0	3	3
4.	OE-EC804	Open Elective - 5	3	0	0	3	3
Total Theory						12	12
F. Practical							
5.	EC881	Project Stage – II	0	0	15	15	7.5
6.	EC891	Grand Viva					1.5
Total Practical						15	9
Total Contact /Credits						27	21

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Professional Electives

Sl No.	Course Code	Course Title	Hours/week			Credits	Semester
			L	T	P		
1	PE-EC505A	Nano Electronics	3	0	0	3	V
2	PE-EC505B	Speech and Audio Processing	3	0	0	3	
3	PE-EC505C	Power Electronics	3	0	0	3	
4	PE-EC505D	Scientific Computing	3	0	0	3	
5	PE-EC603A	Introduction to MEMS	3	0	0	3	VI
6	PE-EC603B	Bio-Medical Electronics	3	0	0	3	
7	PE-EC603C	CMOS VLSI Design	3	0	0	3	
8	PE-EC603D	Information Theory & Coding	3	0	0	3	
9	PE-EC701A	Microwave Theory and Techniques	3	0	0	3	VII
10	PE-EC701B	Satellite Communication	3	0	0	3	
11	PE-EC701C	Mobile Communication and Networks	3	0	0	3	
12	PE-EC702A	Adaptive Signal Processing	3	0	0	3	
13	PE-EC702B	Digital Image and Video Processing	3	0	0	3	
14	PE-EC702C	Neural Network and Fuzzy Logic Control	3	0	0	3	
15	PE-EC703A	Embedded System	3	0	0	3	
16	PE-EC703B	Wireless Sensor Networks	3	0	0	3	
17	PE-EC703C	Wavelet Transforms	3	0	0	3	
18	PE-EC801A	Antennas and Propagation	3	0	0	3	VIII
19	PE-EC801B	Fibre Optic Communication	3	0	0	3	
20	PE-EC801C	Error Correcting Codes	3	0	0	3	
21	PE-EC802A	Mixed Signal Design	3	0	0	3	
22	PE-EC802B	Industrial Automation and Control	3	0	0	3	
23	PE-EC802C	VLSI Design Automation	3	0	0	3	

Maulana Abul Kalam Azad University of Technology, West Bengal
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Syllabus for B. Tech in Electronics & Communication Engineering
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List of Open Elective

Sl No.	Course Code	Course Title	Hours/week			Credits	Semester
			L	T	P		
1	OE-EC506A	Soft Skill and Interpersonal Communication	3	0	0	3	V
2	OE-EC506B	Cyber Law & Intellectual Property Rights	3	0	0	3	
3	OE-EC506C	Human Resource Management	3	0	0	3	
4	OE-EC604A	Electronic Measurements and Measuring Instruments	3	0	0	3	VI
5	OE-EC604B	Operating System	3	0	0	3	
6	OE-EC604C	Object Oriented Programming	3	0	0	3	
7	OE-EC704A	Web Technology	3	0	0	3	VII
8	OE-EC704B	Optimisation Technique	3	0	0	3	
9	OE-EC704C	Entrepreneurship	3	0	0	3	
10	OE-EC803A	Internet of Things(IoT)	3	0	0	3	VIII
11	OE-EC803B	Big Data Analysis	3	0	0	3	
12	OE-EC803C	Cyber Security	3	0	0	3	
13	OE-EC804A	Artificial Intelligence	3	0	0	3	
14	OE-EC804B	Microwave Integrated Circuits	3	0	0	3	
15	OE-EC804C	Organisational Behaviour	3	0	0	3	

M. Tech – ECE (Communication)
For all institutes affiliated to
West Bengal University of Technology

1st semester

Theory:							
Code	Subject	Contacts periods per week				Full marks	Credit
		L	T	P	Total		
MCE 101	Advanced Engg. Math.	3	1	0	4	100	4
MCE102	Compulsory: Advanced digital communication	4	0	0	4	100	4
MCE103	Compulsory: Advanced digital signal processing	4	0	0	4	100	4
MCE104	Compulsory: Advanced microwave communication engineering	4	0	0	4	100	4
MCE105	Elect I: A. Computer communication & networking B. Telecommunication engineering C. Statistical communication D. Microwave applications E. Remote sensing techniques & applications.	4	0	0	4	100	4
	Total of theory				20	500	20
Practical							
MCE191	Lab I: Advanced communication Lab	0	0	3	3	100	2
MVE193	Lab II: Design and Simulation Lab	0	0	3	3	100	2
	Total of practical				6	200	4
Sessional							
MCE183	Seminar I	0	2	0	2	100	1
	Total credit of 1st semester:				28	800	25

M. Tech – ECE (Communication)
For all institutes affiliated to
West Bengal University of Technology
2nd semester

Theory:							
Code	Subject	Contacts periods per week				Full marks	Credit
		L	T	P	Total		
MCE 201	Compulsory: Photonics and Optical Communication	4	0	0	4	100	4
MCE 202	Compulsory: Error control coding	4	0	0	4	100	4
MCE 203	Compulsory: Mobile communication	4	0	0	4	100	4
MCE 204	Elect II: A. Cryptography & network security B. Artificial intelligence & soft computing C. Integratable circuits & Design D. Microwave measurement Techniques	4	0	0	4	100	4
MCE 205	Elect III: A. Satellite communication B. Image processing & pattern recognition C. Multimedia communication D. Advanced antenna and wave propagation	4	0	0	4	100	4
	Total of theory				20	500	20
Practical							
MCE 291	Lab III: Communication systems Lab	0	0	3	3	100	2
Sessional							
MCE 281	Term paper leading to thesis	0	2	0	2	100	1
	Total credit of 2nd semester:				25	700	23

M. Tech – ECE (Communication)
For all institutes affiliated to
West Bengal University of Technology
3rd semester

Theory:							
Code	Subject	Contacts periods per week				Full marks	Credit
		L	T	P	Total		
MCE 301	Compulsory: PROJECT DEVELOPMENT AND RESOURCE MANAGEMENT	4	0	0	4	100	4
MCE 302	Elect IV: A. EMI/EMC B. Ad-hoc networking C. Optical signal processing D. Convergence in communication technology	4	0	0	4	100	4
Sessional							
MCE 381	Dissertation (Part-I)				24	100	4
MCE 382	Defense of dissertation (Part-I)					100	8
	Total credit of 3rd semester:				32	400	20

4TH semester

Sessional:							
Code	Subject	Contacts periods per week				Full marks	Credit
		L	T	P	Total		
Sessional							
MCE 481	Dissertation (Completion)				24	100	6
MCE 482	Post-submission defense of dissertation					100	18
MCE 483	Comprehensive Viva-Voce					100	4
	Total credit of 4th semester:				24	300	28
	Grand Total of credits:						96

Academic Calendar of the University

Academic Calendar 2021-2022

The Academic Calendar as proposed for the year 2021-2022 is being notified as follows:

	Events	For Continuing Batch	For New Batch
	Odd Semester 2021-22		
1	Commencement of University Registration process **online** for newly admitted students	N.A.	Aug 25, 2021
2	Admission activities (*for ensuing new students*) to be completed by	N.A.	Sept 15, 2021
3	Commencement of Academic Programme (AICTE Courses)	Aug 31, 2021	Sept 15, 2021
	Commencement of Academic Programme (Non-AICTE Courses)	Aug 31, 2021	Sept 30, 2021
4	Registration activities (*for ensuing newly admitted students for the session 2020-21*) will be completed by	N.A.	Oct 25, 2021
5	Enrolment of students	Sept 01-10, 2021	Oct 01-07, 2021
6 (a)	Submission of continuous evaluation (CA I)	Oct 01-04, 2021 (Except Sem I)	
6 (b)	Submission of continuous evaluation (CA II & PCA I)	Nov 01-04, 2021	
6 (c)	Submission of continuous evaluation (CA III)	Dec 01-04, 2021	
6 (d)	Submission of continuous evaluation (CA IV & PCA II)	Jan 02-05, 2022	
7	Pre Examinations Activities/ form fill-up	Jan 06-14, 2022	
8(a)	Practical Examinations, Sessionals & Viva-Voce	Jan 15-25, 2022	
8(b)	Theory Examinations	Jan 17-29, 2022	
9 (a)	Last date of submission of MAR (Phase I)	30th Nov 2021	
9 (b)	Last date of submission of MAR (Phase II)	31st Jan 2021	
	Even Semester 2021-22		
1	Commencement of Academic Programme	February 01, 2022	
2	Enrolment of students (for each semester)	Feb 01, 2022 to Feb 10, 2022	
3 (a)	Submission of continuous evaluation (CA I)	Mar 01-04, 2022	
3 (b)	Submission of continuous evaluation (CA II & PCAI)	Apr 01-04, 2022	
3 (c)	Submission of continuous evaluation (CA III)	May 01-04, 2022	
3 (d)	Submission of continuous evaluation (CA IV & PCA II)	June 01-04, 2022	
4	Pre Examinations Activities/ form fill-up	June 05-18, 2022	
5 (a)	Practical Examinations, Sessionals & Viva-Voce	June 20-30, 2022	
5 (b)	Theory Examinations	June 20-30, 2022	

5 (b)	Theory Examinations	June 20-30, 2022
6 (a)	Publication of Result (Final Semester)	Results will be announced in the University website in July 2022
6 (b)	Publication of Result (Other than Final Semester)	Results will be announced in the University website in August 2022
7 (a)	Last date of submission of MAR (Phase I)	30th April 2022
7 (b)	Last date of submission of MAR (Phase II)	30th June 2022
During Inter-Semester-Break (Summer), Practical Training (*where applicable*) may be conducted.		
Separate Supplementary Examinations for final year student will be held tentatively in September, 2022. Details will be available in the University website in due course.		
Announcement regarding other activities will be available in the University website in due course		

27/8/2021

Dr Partha Pratim Lahiri
Registrar, MAKAUT, WB.

REGISTRAR
Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly Known as West Bengal University of Technology)
Kolkata - 700 064

Class Routine : All Class has been taken by the concern faculties through On Line Process during COVID-19 time (March 2020 to February 2022). From March 2022 Off Line Classes Started.
Teaching Load of each Faculty : As per the AICTE Norms
Internal Continuous Evaluation System and place: As per the Norms and orders of the University from time to time
As per university rule four class tests are conducted in a semester for continuous assessment of students.: Through Online process
Student's assessment of Faculty, System in place: As per the Norms and orders of the University from time to time
Institute collect student's feedback in feedback form once in a semester and takes necessary action according to the feedback.: Yes

15	Placement Details

Sl.No	**Name of The Course**	**Academic Session**	**Sanctioned Intake**	**No. Of Students Admitted**	**No. of Students Placed**	**Minimum Package**	**Maximum Package**
1	CSE	2015-2019	60	21	8	1 lac/anum	3.35 lac/anum
2	IT	2015-2019	60	1	0	1 lac/anum	3.35 lac/anum
3	ECE	2015-2019	60	9	3	1.2 lac/anum	3.35 lac/anum
4	AEIE	2015-2019	60	4	1	1.2 lac/anum	3.35 lac/anum
5	EE	2015-2019	60	31	10	1.44 lac/anum	1.8 lac/anum
6	ME	2015-2019	60	44	14	1.44 lac/anum	1.8 lac/anum
7	CE	2015-2019	60	65	12	1.2 lac/anum	1.8 lac/anum
1	CSE	2016-2020	60	17	6	1 lac/anum	3.5 lac/anum
2	ECE	2016-2020	60	3	0	na	na
3	EE	2016-2020	60	51	12	1.2 lac/anum	2.4 lac/anum
4	ME	2016-2020	60	64	9	1.2 lac/anum	1.8 lac/anum
5	AEIE	2016-2020	60	4	0	na	na
5	CE	2016-2020	60	72	11	1.44 lac/anum	1.8 lac/anum
1	CSE	2017-2021	60	6	3	1 lac/anum	3.5 lac/anum
2	ECE	2017-2021	60	2	0	na	na
3	EE	2017-2021	60	45	9	1.2 lac/anum	2.4 lac/anum
4	ME	2017-2021	60	58	11	1.2 lac/anum	1.8 lac/anum
5	CE	2017-2021	60	70	7	1.44 lac/anum	1.8 lac/anum

16	MoUs with Industries

1.

पश्चिमबंग पश्चिम बंगाल WEST BENGAL 31AB 982633

MEMORANDUM OF UNDERSTANDING(MOU)

BETWEEN

Dumkal Institute of Engineering & Technology

&

CodeSpeedy Technology Private Limited

MEMORANDUM OF UNDERSTANDING

This **Memorandum of Understanding** (hereinafter called as the 'MOU') is entered into on this the 8th day of – April – Two Thousand Nineteen **(08-04-2019)**,

BETWEEN

Dumkal Institute of Engineering & Technology, Vill-Basantapur, PO-Basantapur, PS- Dumkal, Dist- Murshidabad, State- West Bengal, the First Party represented herein by its **Prof.(Dr.)Md. Headayetullah (Principal)** (hereinafter referred as **'First Party'**, the Institution which expression, unless excluded by or repugnant to the subject or context shall include its successors – in-office, administrators and assigns).

AND

Codespeedy Technology Private Limited, Vill- Keshabnagar PO- Cossimbazar, Near Vibekananda School, Berhampore, Dist-Murshidabad, WB, 742102, INDIA, the Second Party, and represented herein by **Saruque Ahamed Mollick (Managing Director)**, (hereinafter referred to as "**Second Party**", company which expression, unless excluded by or repugnant to the subject or context shall include its successors – in-office, administrators and assigns).

(First Party and Second Party are hereinafter jointly referred to as 'Parties' and individually as 'Party')

WHEREAS:

A) First Party is a Higher Educational Institution named:

(i) **Dumkal Institute of Engineering and Technology**

B) First Party & Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities.

C) The Parties intent to cooperate and focus their efforts on cooperation within area of Skill Based Training, Education and Research.

D) Both Parties, being legal entities in themselves desire to sign this MOU for advancing their mutual interest;.

E) **Codespeedy Technology Private Limited**, the Second Party is engaged in Business, Manufacturing, Skill Development, Education and R&D Services in the fields of ***Information Technology*** and related fields

F) **Codespeedy Technology Private Limited**, the Second Party is promoted by **Saruque Ahamed Mollick**.

G) Give related information, its branches, and dimensional information about the industry concerned with whom the MoU is sworn.

CodeSpeedy Technology Private Limited is an Information technology company that keep helping the learners and developers to learn computer programming. CodeSpeedy also provides coding solutions along with various IT services (web development, software development etc).

We also provide training and internship on various computer programming field like Java, Python, C++, PHP, AI etc.

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERETO AGREE AS FOLLOWS:

CLAUSE 1: CO-OPERATION

1.1 Both Parties are united by common interests and objectives, and they shall establish channels of communication and co-operation that will promote and advance their respective operations within the **Institution** and its related wings. The Parties shall keep each other informed of potential opportunities and shall share all information that may be relevant to secure additional opportunities for one another.

1.2 First Party and Second Party co-operation will facilitate effective utilization of the intellectual capabilities of the faculty of First Party providing significant inputs to them in developing suitable teaching / training systems, keeping in mind the needs of the industry, the Second Party.

1.3 The general terms of co-operation shall be governed by this MOU. The Parties shall cooperate with each other and shall, as promptly as is reasonably practical, enter into all relevant agreements, deeds and documents (the 'Definitive Documents') as may be required to give effect to the actions contemplated in terms of this MOU. The term of Definitive Documents shall be mutually decided between the Parties. Along with the Definitive Documents, this MOU shall represent the entire understanding as to the subject matter hereof and shall supersede any prior understanding between the Parties on the subject matter hereof.

CLAUSE 2 SCOPE OF THE MoU

2.1 The budding graduates from the Institutions could play a key role in technological up-gradation, innovation and competitiveness of an industry. Both parties believe that close co-operation between the two would be of major benefit to the student community to enhance their skills and knowledge.

2.2 **Curriculum Design:** Second Party will give valuable inputs to the First Party in teaching / training methodology and suitably customize the curriculum so that the students fit into the industrial scenario meaningfully.

2.3 **Industrial Training & Visits:** Industry and Institution interaction will give a n insight into the latest developments / requirements of the industries; the Second Party to permit the Faculty and Students of the First Party to visit its group companies and also involve in Industrial Training Programs for the First Party. The industrial training and exposure provided to students and faculty through this association will build confidence and prepare the students to have a smooth transition from academic to working career. The Second Party will provide its Labs / Workshops / Industrial Sites for the hands-on training of the learners enrolled with the First Party.

2.4 **Internships and Placement of Students:** Second Party will actively engage to help the delivery of the Internship and placement of students of the First Party into internships/jobs, as per AICTE internship Policy. The Second Party will also register itself on AICTE Internship Policy Portal for disseminating the Internship opportunities available with them.

2.5 Research and Development: Both Parties have agreed to carry out the joint research activities in the fields of **Information Technology (Web development, software development, Various programming languages like Java, Python, C++, PHP etc along with AI and Deep Learning).**

2.6 **Skill Development Programs:** Second Party to train the students of First Party on the emerging technologies in order to bridge the skill gap and make them industry ready.

2.7 **Guest Lectures:** Second Party to extend the necessary support to deliver guest lectures to the students of the First Party on the technology trends and in house requirements.

2.8 **Faculty Development Programs:** Second Party to train the Faculties of First Party for imparting industrial exposure/ training as per the industrial requirement considering the National Occupational Standards in concerned sector, if available.

2.9 Both Parties to obtain all internal approvals, consents, permissions, and licenses of whatsoever nature required for offering the Programs on the terms specified herein

2.10 There is no financial commitment on the part of the **Dumkal Institute of Engineering & Technology**, the First Party to take up any program mentioned in the MoU. If there is any financial consideration, it will be dealt separately.

CLAUSE 3: INTELLECTUAL PROPERTY

3.1 Nothing contained in this MOU shall, by express grant, implication, Estoppel or otherwise, create in either Party any right, title, interest, or license in or to the intellectual property (including but not limited to know-how, inventions, patents, copy rights and designs) of the other Party.

CLAUSE 4: VALIDITY

4.1 This Agreement will be valid until it is expressly terminated by either Party on mutually agreed terms, during which period **Codespeedy Technology Private limited**, the Second Party, as the case may be, will take effective steps for implementation of this MOU. Any act on the part of **Codespeedy Technology Private Limited**, the Second Party after termination of this Agreement by way of communication, correspondence etc., shall not be construed as an extension of this MOU

4.2 Both Parties may terminate this MOU upon 30 calendar days' notice in writing. In the event of Termination, both parties have to discharge their obligations

CLAUSE 5: RELATIONSHIP BETWEEN THE PARTIES

5.1 It is expressly agreed that **First Party** and Second **Party** are acting under this MOU as independent contractors, and the relationship established under this MOU shall not be construed as a partnership. Neither Party is authorized to use the other Party's name in any way, to make any representations or create any obligation or liability, expressed or implied, on behalf of the other Party, without the prior written consent of the other Party. Neither Party shall have, nor represent itself as having, any authority under the terms of this MOU to make agreements of any kind in the name of or binding upon the other Party, to pledge the other Party's credit, or to extend credit on behalf of the other Party.

08/04/2019

First Party
Principal
Dumkal Institute of Engg. & Tech.
P.O.- Basantapur, Pin-742406
Dumkal, Dist- Murshidabad

08/04/2019

Second Party
CODESPEEDY TECHNOLOGY PRIVATE LIMITED

DIRECTOR

Any divergence or difference derived from the interpretation or application of the MoU shall be resolved by arbitration between the parties as per the Arbitration Act, 1996. The place of the arbitration shall be at District Head Quarters of the First Party. This undertaking is to be construed in accordance with Indian Law with exclusive jurisdiction in the Courts of Dumkal, Murshidabad.

AGREED:

For Dumkal Institute. Of Engineering & Technology

08/04/2019

Authorized Signatory
Principal
Dumkal Institute of Engg. & Tech.
P.O.- Basantapur, Pin-742406
Dumkal, Dist- Murshidabad

For **Codespeedy Technology Pvt Ltd**

08/04/2019

Authorized Signatory
CODESPEEDY TECHNOLOGY PRIVATE LIMITED

DIRECTOR

Dumkal Institute of Engineering & Technology.	**Codespeedy Technology Pvt Ltd**
Vill+PO- Basantapur PS- Dumkal Dist- Murshidabad, WB, Pin- 742406	Vill. Keshabnagar P.O. Cossimbazar Near Vibekananda School Msd Berhampore Murshidabad Wb 742102 In.
Mobile : 9434531147	Mobile No. 8001007659
directordiet1@gmail.com	contact@codespeedy.com
www.besdiet.org	www.codespeedy.com

Witness1: Subhasis Biswas. 8/4/19

Witness2: 8.4.19

Witness3: Md Asif Ahmed

Witness4: Farugue Ahamed Mollick

2.

पश्चिमबङ्ग पश्चिम बंगाल WEST BENGAL 31AB 982629

MEMORANDUM OF UNDERSTANDING (MOU)

BETWEEN

Dumkal Institute of Engineering & Technology

&

Ardent Computech Private Limited

ক্রমিক নং ৮৭৯ তারিখ ১৬/৮/১১

মূল্য ৫ নাম ডোমকল ফিনস্ট্রিটিউট অফ ইঞ্জিনিয়ারিং এবং টেকনোলজি

গ্রাম (ডোমকল) বসন্তপুর

থানা ডোমকল

স্বাক্ষরের অর্জী লাইনং-৭২/০৬
রেন্ডার ডোমকল এডি এম আর অফিস।

MEMORANDUM OF UNDERSTANDING

This **Memorandum of Understanding** (hereinafter called as the 'MOU') is entered into on this the 19th day of April, Two Thousand Nineteen **(**19-04-2019**)**,

BETWEEN

Dumkal Institute of Engineering & Technology; Vill+PO- Basantapur; PS- Dumkal; Dist- Murshidabad; Pin- 742406;West Bengal, the First Party represented herein by **Prof. (Dr.) Md. Headayetullah (Principal)** (hereinafter referred as **'First Party'**, the institution which expression, unless excluded by or repugnant to the subject or context shall include its successors– in-office, administrators and assigns).

AND

Ardent Computech Private Limited, Module No. 132, SDF Building, Sector-V, Saltlake, Kolkata-700 091, the Second Party, and represented herein by its Zonal/Divisional Head, **Indranil De Sarkar**, (hereinafter referred to as "**Second Party**", company which expression, unless excluded by or repugnant to the subject or context shall include its successors– in-office, administrators and assigns).

(First Party and Second Party are hereinafter jointly referred to as 'Parties' and individually as 'Party')

WHEREAS:

A) First Party is a Higher Educational Institution named:

(i) **Dumkal Institute of Engineering & Technology**

B) First Party & Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities.

C) The Parties intent to cooperate and focus their efforts on cooperation within area of Skill Based Training, Education and Research.

D) Both Parties, being legal entities in themselves desire to sign this MOU for advancing their mutual interest.

E) **Ardent Computech Private Limited**, the Second Party is engaged in Business, Manufacturing, Skill Development, Education and R&D Services in the fields of ***IT, ITES & Software Development & Training*** and related fields.

F) **Ardent Computech Private Limited**, the Second Party is promoted by **Indranil De Sarkar & Rajmohan De Sarkar**; **Module No. 132, SDF Building, Sector-V, Saltlake, Kolkata-700091** and ARDENT COLLABORATIONS, is an IT Education & Training division of ARDENT COMPUTECH PVT. LTD., offering the latest, updated and comprehensive courses in the field of Information Technology from last 15 years. ARDENT has received prestigious ISO: 9001:2015 certificate from BIS, Govt. of India, for design, development & delivery of Software Education & Training.

G) The brand ARDENT, by virtue of its empanelment with companies like IBM, WIPRO, HCL, Aptech ,Thomson Financial, CTS, Accenture, HP, Iblex, Ensim India etc., has now become a tested and trusted Corporate Training provider amongst the best in corporate throughout the country.

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERETO AGREE AS FOLLOWS:

CLAUSE 1 : CO-OPERATION

1.1 Both Parties are united by common interests and objectives, and they shall establish channels of communication and co-operation that will promote and advance their respective operations within the **Institution** and its related wings. The Parties shall keep each other informed of potential opportunities and shall share all information that may be relevant to secure additional opportunities for one another.

1.2 First Party and Second Party co-operation will facilitate effective utilization of the intellectual capabilities of the faculty of First Party providing significant inputs to them in developing suitable teaching/training systems, keeping in mind the needs of the industry, the Second Party.

1.3 The general terms of co-operation shall be governed by this MOU. The Parties shall cooperate with each other and shall, as promptly as is reasonably practical, enter into all relevant agreements, deeds and documents (the 'Definitive Documents') as may be required to give effect to the actions contemplated in terms of this MOU. The term of Definitive Documents shall be mutually decided between the Parties. Along with the Definitive Documents, this MOU shall represent the entire understanding as to the subject matter hereof and shall supersede any prior understanding between the Parties on the subject matter hereof.

CLAUSE 2 : SCOPE OF THE MoU

2.1 The budding graduates from the institutions could play a key role in technological up-gradation, innovation and competitiveness of an industry. Both parties believe that close co-operation between the two would be of major benefit to the student community to enhance their skills and knowledge.

2.2 **Curriculum Design:** Second Party will give valuable inputs to the First Party in teaching / training methodology and suitably customize the curriculum so that the students fit into the industrial scenario meaningfully.

2.3 **Industrial Training & Visits:** Industry and Institution interaction will give an insight into the latest developments/requirements of the industries; the Second Party to permit the Faculty and Students of the First Party to visit its group companies and also involve in Industrial Training Programs for the First Party. The industrial training and exposure provided to students and faculty through this association will build confidence and prepare the students to have a smooth transition from academic to working career. The Second Party will provide its Labs/Workshops/Industrial Sites for the hands-on training of the learners enrolled with the First Party.

2.4 **Internships and Placement of Students:** Second Party will actively engage to help the delivery of the Internship and placement of students of the First Party into internships/jobs, as per AICTE internship Policy. The Second Party will also register itself on AICTE Internship Policy Portal for disseminating the Internship opportunities available with them.

2.5 **Research and Development:** Both Parties have agreed to carry out the joint research activities in the fields of **IT, *ITES & Software Development & Training.***

2.6 **Skill Development Programs:** Second Party to train the students of First Party on the emerging technologies in order to bridge the skill gap and make them industry ready.

2.7 **Guest Lectures:** Second Party to extend the necessary support to deliver guest lectures to the students of the First Party on the technology trends and in house requirements.

2.8 **Faculty Development Programs:** Second Party to train the Faculties of First Party for imparting industrial exposure/training as per the industrial requirement considering the National Occupational Standards in concerned sector, if available.

2.9 Both Parties to obtain all internal approvals, consents, permissions, and licenses of whatsoever nature required for offering the Programs on the terms specified herein.

2.10 There is no financial commitment on the part of the Dumkal Institute of Engineering and Technology, the First Party to take up any program mentioned in the MoU. If there is any financial consideration, it will be dealt separately.

CLAUSE 3: INTELLECTUAL PROPERTY

3.1 Nothing contained in this MOU shall, by express grant, implication, Estoppel or otherwise, create in either Party any right, title, interest, or license in or to the intellectual property (including but not limited to know-how, inventions, patents, copy rights and designs) of the other Party.

CLAUSE 4: VALIDITY

4.1 This Agreement will be valid until it is expressly terminated by either Party on mutually agreed terms, during which period **Ardent Computech Private Limited**, the Second Party, as the case may be, will take effective steps for implementation of this MOU. Any act on the part of **Ardent Computech Private Limited**, the Second Party after termination of this Agreement by way of communication, correspondence etc., shall not be construed as an extension of this MOU

4.2 Both Parties may terminate this MOU upon 30 calendar days' notice in writing. In the event of Termination, both parties have to discharge their obligations

CLAUSE 5 : RELATIONSHIP BETWEEN THE PARTIES

5.1 It is expressly agreed that **First Party** and Second **Party** are acting under this MOU as independent contractors, and the relationship established under this MOU shall not be construed as a partnership. Neither Party is authorized to use the other Party's name in any way, to make any representations or create any obligation or liability, expressed or implied, on behalf of the other Party, without the prior written consent of the other Party. Neither Party shall have, nor represent itself as having, any authority under the terms of this MOU to make agreements of any kind in the name of or binding upon the other Party, to pledge the other Party's credit, or to extend credit on behalf of the other Party.

19/09/2019

First Party

Indranil De Sarkar

Second Party

Principal
Dumkal Institute of Engg. & Tech
P.O.- Basantapur, Pin-742406
Dumkal, Dist- Murshidabad

Any divergence or difference derived from the interpretation or application of the MoU shall be resolved by arbitration between the parties as per the Arbitration Act, 1996. The place of the arbitration shall be at District Head Quarters of the First Party. This undertaking is to be construed in accordance with Indian Law with exclusive jurisdiction in the Courts of **Dumkal, Murshidabad.**

AGREED:

For **Dumkal Institute of Engineering & Technology**

19/04/2019

Authorized Signatory

Principal
Dumkal Institute of Engg. & Tech
P.O.- Basantapur, Pin 742406
Dumkal, Dist. Murshidabad

For **Ardent Computech Private Limited**

Indranil De Sarkar

Authorized Signatory

Dumkal Institute of Engineering & Technology.	**Ardent Computech Private Limited**
Vill+PO- Basantapur, PS- Dumkal, Dist- Murshidabad, Pin- 742406	Module No. 132, SDF Building, Sector-V, Saltlake, Kolkata-700 091
Mobile: 9434531147	9674489000
directordiet1@gmail.com	indranildesarkar@ardentcollaborations.com
www.besdiet.org	www.ardentcollaborations.com

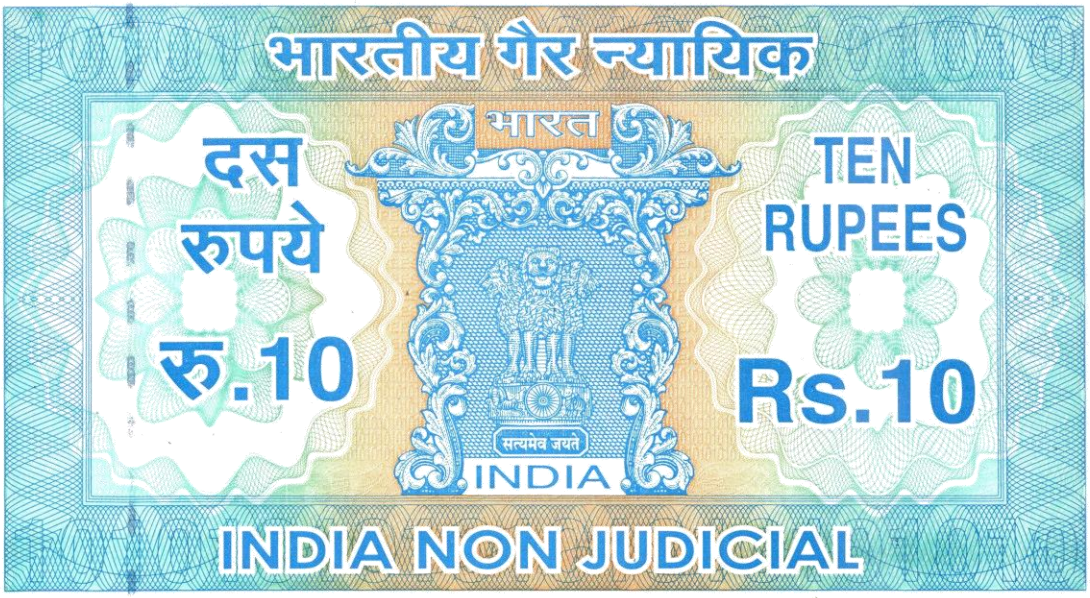
Witness1: Subhasis Biswas.

Witness2: Seema Bose

Witness3: 19.4.19

Witness4: Mamita Chakraborty

3.



पश्चिमबङ्ग पश्चिम बंगाल WEST BENGAL 31AB 982630

MEMORANDUM OF UNDERSTANDING (MOU)

BETWEEN

Dumkal Institute of Engineering & Technology

&

High-Technext Engineering & Telecom Private Limited

ক্রমিক নং ৮৯৮ তারিখ ১৬ ৮ ১৯৯

মূল্য ৫৫ নাম

গ্রাম বসন্তপুর

থানা সিমরাল

স্বাঃ(সাজ্জাদ আলী)লাঃনং-৭২/০৬
ভেন্ডার ডোমকল এডি এস আর অফিস।

MEMORANDUM OF UNDERSTANDING

This **Memorandum of Understanding** (hereinafter called as the 'MOU') is entered into on this the 3rd day of May Two Thousand Nineteen **(03-05-2019).**

BETWEEN

Dumkal Institute of Engineering & Technology, Vill+PO- Basantapur, PS-Dumkal, Murshidabad, West Bengal, the First Party represented herein by **Prof. (Dr.) Md. Headayetullah (Principal)** (hereinafter referred as **'First Party'**, the institution which expression, unless excluded by or repugnant to the subject or context shall include its successors-in-office, administrators and assigns).

AND

High-Technext Engineering & Telecom Private Limited, Block- EN-13, [N.I.A.S BUILDING] Antariksh Tech Park, Saltlake Sec-V, Kolkata-700091, West Bengal, the Second Party, and represented herein by Mr. MONOJIT CHAKRABORTY (Managing Director), (hereinafter referred to as "**Second Party**", company which expression, unless excluded by or repugnant to the subject or context shall include its successors–in-office, administrators and assigns).

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D) Both Parties, being legal entities in themselves desire to sign this MOU for advancing their mutual interest.

E) **High-technext Engineering & Telecom Private Limited**, the Second Party is engaged in Business, Manufacturing, Skill Development, Education and R&D Services in the fields of Telecom Services (RF, EMF, LOS UBR BTS I&C 3G,4G) and related fields.

F) **High-technext Engineering & Telecom Private Limited**, the Second Party is promoted by **Mr. MONOJIT CHAKRABORTY.**

G) High-technext Engineering & Telecom Pvt. Ltd. is one of the leading companies, who offers an array of world-class products and solutions to meet all hardware requirements of telecom manufacturers, telecom service providers and telecom users. High-technext Engineering & Telecom Pvt. Ltd. combines expertise with experience to deliver state-of-art products and solutions spanning the wide spectrum of wireless Telecommunications. High-technext Engineering & Telecom Pvt. Ltd. provides exceptional quality works with the help of professional personals for a long time.

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Monojit Chakraborty.

First Party

Principal
Dumkal Institute of Engg. & Tech.
P.O.- Basantapur, Pin-742406
Dumkal, Dist- Murshidabad

Second Party

...GH-TECHNEXT ENGINEERING & TELECOM PVT. LTD.
Monojit Chakraborty

Director

Any divergence or difference derived from the interpretation or application of the MoU shall be resolved by arbitration between the parties as per the Arbitration Act, 1996. The place of the arbitration shall be at District Head Quarters of the First Party. This undertaking is to be construed in accordance with Indian Law with exclusive jurisdiction in the Courts of Dumkal, Murshidabad.

AGREED:

For **Dumkal Institute of Engineering & Technology**

Authorized Signatory
Principal
Dumkal Institute of Engg. & Tech.
P.O.- Basantapur, Pin-742406
Dumkal, Dist- Murshidabad

For **High-technext Engineering & Telecom Private Limited**

HIGH-TECHNEXT ENGINEERING & TELECOM PVT. LTD.

Authorized Signatory

Dumkal Inst. Of Engineering & Technology	**High-technext Engineering & Telecom Private Limited**
Vill+PO-Basantapur, PS- Dumkal, Dist- Murshidabad, West Bengal, Pin- 742406, India.	Block- EN-13, [N.I.A.S BUILDING] Antariksh Tech Park, Saltlake Sec-V, Kolkata-700091, West Bengal, India.
Mobile: 9434531147	Contact Details-7003111616/8373059589
directordiet1@gmail.com	admin@hitechnext.com
www.besdiet.org	www.hitechnext.com

Witness1: _____

Witness2: _____

Witness3: _____

Witness4: _____

17	LoA and Subsequent EoA till the current Academic year

अखिल भारतीय तकनीकी शिक्षा परिषद्
ALL INDIA COUNCIL FOR TECHNICAL EDUCATION
(भारत सरकार का एक सांविधिक संस्थान) (A STATUTORY BODY OF THE GOVERNMENT OF INDIA)

F.No.: 750-80-027(NDEG)/ET/2001
Date : 28.06.2001

Secretary
Deptt. of Tech. Edu. & Trg.
Govt. of West Bengal.
Bikash Bhawan, 6th Floor, East Block.
Salt Lake City, Kolkata – 700 091.

Sub: AICTE approval to Basantapur Educational Trust, P.O. , P.S.& Sub-Div, Dumkal, Dist-Murshidabad, WB – 742303. for establishment of Dumkal Instt. Of Engg. & Tech., Mouza Ramna, Etbar Nagar, Basantapur, Mursidabad – 742 303, WB.

Sir,

I am directed to state that based on the consultations with the concerned State Govt., the concerned affiliating body and on recommendations of the Regional Committee, the Expert Committee constituted by the Council and as per the provisions of AICTE Act and Regulations, the All India Council for Technical Education (AICTE), is pleased to accord approval to Basantapur Educational Trust, P.O. , P.S.& Sub-Div, Dumkal, Dist-Murshidabad, WB – 742303. for establishment of Dumkal Instt. Of Engg. & Tech., Mouza Ramna, Etbar Nagar, Basantapur, Mursidabad – 742 303, WB. for the academic year 2001-2002, for course(s) and intake as given below with specific condition that admission shall be made through the Central Counseling by the Government of West Bengal only. This approval is valid only for the academic years 2001-2002 and cannot be extended for the next year 2002-2003. In the event the establishment of the institutions having not been operationalised, this approval is not valid unless AICTE specifically revalidates.

COURSE(S)	INTAKE	LEVEL	DURATION (YEARS)	PERIOD OF APPROVAL
Comp. Sc. & Engg.	60	Degree	4 YEARS	2001-2002
Information Technology	60	Degree	4 YEARS	2001-2002
Electronics & Comm. Engg.	60	Degree	4 YEARS	2001-2002
Electronics & Instrumentation Engg.	60	Degree	4 YEARS	2001-2002
Total	240			

This approval has been accorded subject to fulfillment of general conditions and as per the Norms and Standards of the AICTE, and also specific conditions(if any, given).

The attention of the management is drawn to the fact that the approval given now, is only for one academic session before the end of which an expert committee shall visit to assess if the norms and standards as stipulated by AICTE are fulfilled, and only then will the continuation or otherwise shall be intimated.

The admission will be made in accordance with Regulations notified by the AICTE vide GSR 476(E) dated 20.05.1994 based on the Hon'ble Supreme Court Judgment dated 04.02.1993 with regard to W.P(C) No. 607 of 1992 in the case of Unni Krishnan JP and other etc. V/s. State Government of Andhra Pradesh and others etc. and later judgments. No Management/Institute/Trust or Society shall announce admissions directly under any circumstances. Any action by the institute contrary to any provisions laid down by the Council and concerned State Government shall make it liable for actions.

Contd...2

In the event of infringement/contravention or non-compliance of the provisions of AICTE Regulations, Guidelines or the norms and standards as prescribed by the AICTE, the Council shall take further action to withdraw approval, and the liability arising out of such withdrawal of approval will be solely that of Management/Trust/Society and/or Institution.

The Council may inspect/ visit the Institution any time it may deem fit to verify the progress/ compliance.

You are requested to kindly monitor the progress made by this institution towards fulfilling the norms and standards prescribed by the Council and keep the concerned Regional Office and AICTE, New Delhi informed.

Yours faithfully,

(Prof. R.S. Gaur)

Copy to :

1. The Regional Officer, AICTE, Eastern Regional Office, A.I.C.T.E. Institute of Leather Technology Campus, Salt Lake City Sector – III, Kolkata – 700 091.

He is requested to ensure compliance with the Norms and Standards and conditions stipulated by the Council and keep the concerned Regional Committee and the AICTE informed of the same.

He is also requested to ensure the receipt of notarized undertaking as specified by the Council from the institution/management concerned within the stipulate time frame.

2. The Director of Technical Education, Govt. of West Bengal, Bikash Bhavan, 10th Floor, East Block, Salt Lake City Kolkata – 700 091.

3. The Registrar, University of Kalyani, P.o. Kalyani, Distt. Nadia – 741 235, WB
He is requested to complete the process of affiliation for facilitating admissions.

4. The Principal, Durnkal Instt. Of Engg. & Tech., Mouza Ramna, Etbar Nagar, Basantapur, Murshidabad – 742 303, WB.
(i)The institution should submit a notarized undertaking on non-judicial stamp paper as per format given in Annexure I to the concerned Regional Office, AICTE with a copy to the Headquarters, AICTE, New Delhi within one month from the date of receipt of this approval letter.

(ii)The institution/management should also submit a notarized undertaking from the Governing Body to the concerned Regional Office, AICTE with a copy to Headquarters, AICTE, New Delhi and to the concerned State Government, that all the infrastructural and instructional facilities shall be in place as per the norms of AICTE prior to the admissions of any student for the academic year 2001-2002.

5. Guard File

File No.: 750-80/027(NDEG)/ET/2001

Specific Conditions:

1. H.O.D. and Staff / Faculty to be appointed immediately as per the AICTE norms .
2. Construction work to be completed before the commencement of the academic session.
3. More computers to be procured and installed
4. Library books to be procured and library space to be separated.
5. Internet facilities are to be provided.
6. Physics and electronics labs are partially equipped and needs additional equipments before commencement of the classes.
7. Workshop needs bigger area.

The deficiencies mentioned above should be complied by 15th July 2001 and same to be intimated to Regional Office, AICTE, Kolkata.

All India Council for Technical Education

(A Statutory body under Ministry of Education, Govt. of India)

Nelson Mandela Marg,Vasant Kunj, New Delhi-110070 Website: www.aicte-india.org

APPROVAL PROCESS 2021-22

Extension of Approval (EoA)

F.No. Eastern/1-9318680458/2021/EOA

Date: 25-Jun-2021

To,

The Secretary (Technical education)
Govt. of West Bengal,
Bikash Bhawan, Room No. 602,
6th Floor Salt Lake, Kolkata-700091

Sub: Extension of Approval for the Academic Year 2021-22

Ref: Application of the Institution for Extension of Approval for the Academic Year 2021-22

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations, 2021 Notified on 4th February, 2020 and amended on 24th February 2021 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to:

Permanent Id	1-2063201	**Application Id**	1-9318680458
Name of the Institution /University	DUMKAL INSTITUTE OF ENGINEERING & TECHNOLOGY	**Name of the Society/Trust**	BASANTAPUR EDUCATION SOCIETY
Institution /University Address	VILLAGE BASANTAPUR PO BASANTAPUR PS DUMKAL DIST MURSHIDABAD PIN 742406 WEST BENGAL INDIA, KOLKATA, MURSHIDABAD, West Bengal, 742406	**Society/Trust Address**	PO+ VILL BASANTAPUR DIST MURSHIDABAD WEST BENGAL,BASANTAPUR,MURSHIDABAD,West Bengal,742406
Institution /University Type	Private-Self Financing	**Region**	Eastern

To conduct following Programs / Courses with the Intake indicated below for the Academic Year 2021-22

Program	Level	Course	Affiliating Body (University /Body)	Intake Approved for 2020-21	Intake Approved for 2021-22	NRI Approval Status	FN / Gulf quota/ OCI/ Approval Status
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	COMPUTER SCEINCE & ENGINEERING	Maulana Abul Kalam Azad University of Technology, West Bengal	60	60	NA	NA
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	ELECTRONICS AND COMMUNICATIONS ENGINEERING	Maulana Abul Kalam Azad University of Technology, West Bengal	60	60	NA	NA

ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	ELECTRICAL ENGINEERING	Maulana Abul Kalam Azad University of Technology, West Bengal	60	60	NA	NA
ENGINEERING AND TECHNOLOGY	POST GRADUATE	ELECTRONICS AND COMMUNICATIONS ENGINEERING	Maulana Abul Kalam Azad University of Technology, West Bengal	18	18	NA	NA
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	MECHANICAL ENGINEERING	Maulana Abul Kalam Azad University of Technology, West Bengal	60	60	NA	NA
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	CIVIL ENGINEERING	Maulana Abul Kalam Azad University of Technology, West Bengal	60	60	NA	NA

It is mandatory to comply with all the essential requirements as given in APH 2021-22 (Appendix 6)

Important Instructions

1. The State Government/ UT/ Directorate of Technical Education/ Directorate of Medical Education shall ensure that 10% of reservation for Economically Weaker Section (EWS) as per the reservation policy for admission, operational from the Academic year 2019-20 is implemented without affecting the reservation percentages of SC/ ST/ OBC/ General. However, this would not be applicable in the case of Minority Institutions referred to the Clause (1) of Article 30 of Constitution of India. Such Institution shall be permitted to increase in annual permitted strength over a maximum period of two years.

2. The Institution offering courses earlier in the Regular Shift, First Shift, Second Shift/Part Time now amalgamated as total intake shall have to fulfil all facilities such as Infrastructure, Faculty and other requirements as per the norms specified in the Approval Process Handbook 2021-22 for the Total Approved Intake. Further, the Institutions Deemed to be Universities/ Institutions having Accreditation/ Autonomy status shall have to maintain the Faculty: Student ratio as specified in the Approval Process Handbook.

3. Strict compliance of Anti-Ragging Regulation, Establishment of Committee for SC/ ST, Establishment of Internal Complaint Committee (ICC), Establishment of Online Grievance Redressal Mechanism, Barrier Free Built Environment for disabled and elderly persons, Fire and Safety Certificate should be maintained as per the provisions made in Approval Process Handbook and AICTE Regulation notified from time to time.

4. In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Prof.Rajive Kumar
Member Secretary, AICTE

Copy ** to:

1. **The Director of Technical Education**, West Bengal**

2. **The Registrar**,**
   Maulana Abul Kalam Azad University Of Technology, West Bengal

3. **The Principal / Director,**
DUMKAL INSTITUTE OF ENGINEERING & TECHNOLOGY
Village Basantapur
Po Basantapur
Ps Dumkal
Dist Murshidabad
Pin 742406
West Bengal
India,
Kolkata,Murshidabad,
West Bengal,742406

4. **The Secretary / Chairman,**
PO+ VILL BASANTAPUR
DIST MURSHIDABAD
WEST BENGAL
BASANTAPUR,MURSHIDABAD
West Bengal,742406

5. **The Regional Officer,**
All India Council for Technical Education
College of Leather Technology Campus
Block LB, Sector III, Salt Lake City
Kolkata - 700 098, West Bengal

6. **Guard File(AICTE)**

Note: Validity of the Course details may be verified at http://www.aicte-india.org/ .

** Individual Approval letter copy will not be communicated through Post/Email. However, consolidated list of Approved Institutions(bulk) will be shared through official Email Address to the concerned Authorities mentioned above.

This is a computer generated Statement. No signature Required

17	Accounted audited statement for the last three years

M. RAHAMAN & CO.
Chartered Accountants

23, Marquis Street (Room No.111)
Kolkata -700 016
Mobile : 9331119516
E-mail : ca.rahaman90@gmail.com

AUDITOR'S REPORT

We have examined the Balance Sheet as at 31st March , 2018 and the Income and Expenditure Account for the year ended on that date , attached herewith of Dumkal Institute of Engineering and Technology , Basantapur , P.S. Dumkal , Dist . Murshidabad , West Bengal .

We certify that the Balance Sheet and the Income & Expenditure Account are in agreement with the Books of Accounts maintained at the office premises of the society at Basantapur , Murshidabad, West Bengal.

We have obtained all the information and explanation , which to the best of our knowledge and belief were necessary for the purpose of the Audit .

In our opinion and to the best of our information and according to the explanation given to us the said accounts gives a true and fair view :-

i) In the case of Balance Sheet , of the state of affairs as at 31.03.2018
ii) In the case of Income & Expenditure Account , of the surplus/deficit for the year ended on that date .

M. RAHAMAN & CO. KOLKATA Chartered Accountants

Dated- 12 - 06 - 2018
Place : Kolkata.

For M.RAHAMAN & CO.
Chartered Accountants
Mijanur Rahaman
FCA
Chartered Accountant
M No. 55162

DUMKAL INSTITUTE OF ENGINEERING & TECHNOLOGY
Basantapur, Dumkal, Murshidabad.
Balance Sheet as on 31.03.2018

SOURCES OF FUNDS	SCHEDULE	CURRENT YEAR	PREVIOUS YEAR
UNRESTRICTED FUND			
CORPUS			
GENERAL FUND			
DESIGNATED FUND			
RESTRICTED FUNDS			
LOANS / BORROWINGS			
SECURED		15525748	25370130
UNSECURED			
CURRENT LIABILITIES & PROVISION		131473469	119091047
PROVISSION FOR DEPRECIATION		3480802	3578502.00
Caution Money		1459687	1735721
Creditors		4262295	3820195.00
Others Liabilities		323228	
E.S.I Contribution			
TOTAL		156525229.00	153595595.00
APPLICATION OF FUNDS			
FIXED ASSETS			
TRANSIBLE:		85302256.00	85270104.00
Land & Building		6029624.00	5989069.00
Furniture & Fixture		6797247.00	6797247.00
Books		26637694.00	26637694.00
Laboratory goods		233962.00	233962.00
Photocopier		16334406.00	16262865.00
Computer		2694159.00	2694159.00
Power System		4087807.00	3860952.00
General Facilities		437540.00	437540.00
A.C.Machine		2482350.00	2482350.00
Workshop Equipment		17000.00	17000.00
Refrigerator			
INTRANSIBLE		1903444.00	1886194.00
Software			
CAPITAL WORK IN PROGRESS			
INVESTMENTS			
LONG TERM			
SHORT TERM			
CURRENT ASSETS			
LOAN, ADVANCE & DEPOSITS		66292	66292
Advance to Creditors			
Advance for Lab Instruments			
Cash at bank:		233660.00	119923.00
SBI 1174288603		454247.00	242463.00
BOB 29420100000517		2790220.00	597472.00
BOB 29420100000506		23321.00	309.00
UBI 1302010102143			
Cash in hand			
TOTAL		156525229.00	153595595.00

Mijanur Rahaman
FCA
Chartered Accountant
M.No.-55152

DUMKAL INSTITUTE OF ENGINEERING & TECHNOLOGY
BASANTAPUR, DUMKAL, MURSHIDABAD
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2017-2018

	Schedule	Current Year					Previous Year
		Unrestricted Funds			Restricted Funds	Total	Total
		Corpus	Designated fund	General fund			
INCOME							
Academic Receipts					29622036		26105015
Grants & Donations					34871		55632
Income from bank interest					64600		75400
Other incomes							
TOTAL				0	29721507	29721507	26236047
EXPENDITURE							
Staff Payments & Benefits					23916355		24554224
Academic Expenses					3030533		3186361
Administrative and General Expenses					1174953		1691652
Inspection & Administraion					80000		161500
Repairs & maintenance					182572		183221
Finance Costs					16426		16930
Renewal & Affiliation					232500		100000
PROVISSION FOR DEP					12382422		12366215
TOTAL (B)				0	41015761	41015761	42260103
Balance being excess of Income over Expenditure (A-B)						-11294254	-16024056
Balance being Surplus (Deficit) Carried to General Fund							

M. RAHAMAN & CO. KOLKATA Chartered Accountants

Mijanur Rahaman
FCA
Chartered Accountant
M.No.-55152

Combined Audit

M.RAHAMAN & CO.
Chartered Accountants

23,Marquis Street
Kolkata- 700 016

AUDITOR' S REPORT

We have examined the Balance Sheet as at 31st March, 2019 and the Income and Expenditure Account for the year ended on that date, attached herewith of DUMKAL INSTITUTE OF ENGINEERING & TECHNOLOGY, BASANTAPUR, P.S.DUMKAL, DIST. MURSHIDABAD, W.B

We certify that the Balance Sheet and The Income & Expenditure Account are in agreement with the Books of Account maintained at the office premises of the Society at Basantapur, Murshidabad, West Bengal.

We have obtained all the information and explanation, which to the best of our knowledge and belief were necessary for the purpose of the Audit.

In our opinion and to the best of our information and according to the explanation given to us the said accounts gives a true and fair view:-

i) In the case of Balance Sheet, of the state of affairs as at 31.03.2019
ii) In the case of Income & Expenditure Account, of the surplus/deficit for the year ended on that date.

Dated:- 30th June,2019
Place: Kolkata

M.Rahaman & Co KOLKATA Chartered Accountants

For M.Rahaman & Co
Chartered Accountants

M.Rahaman, F C A

Mijanur Rahaman FCA
Chartered Accountant
M. No.- 55162

Chairman
Basantapur Education Society
Basantapur-742406, Murshidabad

DUMKAL INSTITUTE OF ENGINEERING & TECHNOLOGY
BASANTAPUR, DUMKAL, MURSHIDABAD
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2018-2019

	Schedule	Current Year					Previous Year
		Unrestricted Funds			Restricted Funds	Total	Total
		Corpus	Designated fund	General fund			
INCOME							
Academic Receipts				30144551			29622036
Grants & Donations							
Income from bank interest				319975			34871
Other incomes				274550			64600
TOTAL(A)				30739076	0	30739076	29721507
EXPENDITURE							
Staff Payments & Benefits				24077990			23916355
Academic Expenses				2706546			3030533
Administrative and General Expenses				1102618			1174953
Inspection & Administraion				95000			80000
Repairs & maintenance				220548			182572
Finance Costs				50201			16426
Renewal & Affiliation				212500			232500
PROVISSION FOR DEP				12394130			12382422
TOTAL (B)				40859533	0	40859533	41015761
Balance being excess of Income over Expenditure (A-B)						-10120457	-11294254
Balance being Surplus (Deficit) Carried to General Fund							

M. Rahaman & Co. KOLKATA Chartered Accountants

Mijanur Rahaman
FCA
Chartered Accountant
M. No.- 55162

Chairman
Basantapur Education Society
Basantapur-742406, Murshidabad

DUMKAL INSTITUTE OF ENGINEERING & TECHNOLOGY
Basantapur, Dumkal, Murshidabad.
Balance Sheet as on 31.03.2019

SOURCES OF FUNDS	SCHEDULE	CURRENT YEAR	PREVIOUS YEAR
UNRESTRICTED FUND			
CORPUS			
GENERAL FUND			
DESIGNATED FUND			
RESTRICTED FUNDS			
LOANS / BORROWINGS			
SECURED			
UNSECURED		990313	15525748
CURRENT LIABILITIES & PROVISION			
PROVISSION FOR DEPRECIATION		143867599	131473469
Caution Money		3736252	3480802.00
Creditors		1363392	1459687
Others Liabilities		4390694	4262295.00
E.S.I Contribution		409420	323228
TOTAL		154757670.00	156525229.00
APPLICATION OF FUNDS			
FIXED ASSETS			
TRANSIBLE:			
Land & Building		85302256.00	85302256.00
Furniture & Fixture		6035524.00	6029624.00
Books		6800012.00	6797247.00
Laboratory goods		26637694.00	26637694.00
Photocopier		233962.00	233962.00
Computer		16339020.00	16334406.00
Power System		2694159.00	2694159.00
General Facilities		4104059.00	4087807.00
A.C.Machine		437540.00	437540.00
Workshop Equipment		2482350.00	2482350.00
Refrigerator		17000.00	17000.00
INTRANSIBLE			
Software		1903444.00	1903444.00
CAPITAL WORK IN PROGRESS			
INVESTMENTS			
LONG TERM			
SHORT TERM			
CURRENT ASSETS			
LOAN, ADVANCE & DEPOSITS			
Advance to Creditors		79900	66292
Cash at bank:			
SBI 1174288603		82436.00	233660.00
BOB 29420100000517		350861.00	454247.00
BOB 29420100000506		1154901.00	2790220.00
UBI 1302010102143		47380.00	23321.00
BOB 29420100005031		55172.00	
Cash in hand			
TOTAL		154757670.00	156525229.00

M. Rahaman & Co. KOLKATA Chartered Accountants

Basantapur Education Society
Basantapur-742406, Murshidabad

Mijanur Rahaman
FCA
Chartered Accountant
M. No.- 55162

Dumkal Institute of Engineering & Technology

Basantapur, Dumkal, Murshidabad.

Statement of Assets
As on 31/03/2019

Item	As on 1/4/2018	Purchase This Year	Depreciation	Rate	Cl Balance
Building	85058972.00		4252948.6	5%	85058972.00
Furniture & Fixture	6029624.00		602962.4	10%	6029624.00
Books	6797247.00	2765.00	679862.95	10%	6800012.00
Computer	16334406.00	4614.00	3267342.6	20%	16339020.00
Lab.Equipment	26637694.00		2663769.4	10%	26637694.00
General Facilities	4087807.00	16252.00	409593.3	10%	4104059.00
Workshop Equipment	2482350.00		248235	10%	2482350.00
Power System	2694159.00		269415.90	10%	2694159.00
Refrigerator	17000.00		1700	10%	17000.00
X-rox	233962.00		23396.20	20%	233962.00
AC	436940.00		43694	10%	436940.00
Software	1903444.00		380688.8	20%	1903444.00
	152713605.00	23631.00	12394130.15		152737236.00

M. Rahaman & Co. KOLKATA Chartered Accountants

CHARTERED ACCOUNTANTS

Mijanur Rahaman
FCA
Chartered Accountant
M. No.- 55162

Chairman
Basantapur Education Society
Basantapur-742406, Murshidabad

M. RAHAMAN & CO.
Chartered Accountants

23, Marquis Street (Room No.111)
Kolkata -700 016
Mobile : 9331119516
E-mail : ca.rahaman90@gmail.com

AUDITOR'S REPORT

We have examined the Balance Sheet as at 31st March , 2020 and the Income and Expenditure Account for the year ended on that date , attached herewith of Dumkal Institute of Engineering and Technology , Basantapur , P.S. Dumkal , Dist . Murshidabad , West Bengal .

We certify that the Balance Sheet and the Income & Expenditure Account are in agreement with the Books of Accounts maintained at the office premises of the society at Basantapur , Murshidabad, West Bengal.

We have obtained all the information and explanation , which to the best of our knowledge and belief were necessary for the purpose of the Audit .

In our opinion and to the best of our information and according to the explanation given to us the said accounts gives a true and fair view :-

i) In the case of Balance Sheet , of the state of affairs as at 31.03.2020
ii) In the case of Income & Expenditure Account , of the surplus/deficit for the year ended on that date .

M. RAHAMAN & CO. KOLKATA Chartered Accountants

Dated- 27 - 11 - 2020
Place : Kolkata.

For M.RAHAMAN & CO.
Chartered Accountants
Mijanur Rahaman
FCA
Chartered Accountant
M.No.-55162

DUMKAL INSTITUTE OF ENGINEERING & TECHNOLOGY
BASANTAPUR, DUMKAL, MURSHIDABAD
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR 2019-2020

	Schedule	Current Year					Previous Year
		Unrestricted Funds			Restricted Funds	Total	Total
		Corpus	Designated fund	General fund			
INCOME							
Academic Receipts				26298194			30144551
Grants & Donations				300193			319975
Income from bank interest				457300			274550
Other incomes							
TOTAL(A)				27055687	0	**27055687**	**30739076**
EXPENDITURE							
Staff Payments & Benefits				20770036			24077990
Academic Expenses				963141			2706546
Administrative and General Expenses				826994			1102618
Inspection & Administraion							95000
Repairs & maintenance				290182			220548
Finance Costs				66246			50201
Renewal & Affiliation				257500			212500
PROVISSION FOR DEP							12394130
TOTAL (B)				23174099	0	**23174099**	**40859533**
Balance being excess of Income over Expenditure (A-B)						3881588	**-10120457**
Balance being Surplus (Deficit) Carried to General Fund							

M. RAHAMAN & CO. KOLKATA Chartered Accountants

Mijanur Rahaman
FCA
Chartered Accountant
M.No.-55162

DUMKAL INSTITUTE OF ENGINEERING & TECHNOLOGY
Basantapur, Dumkal, Murshidabad.
Balance Sheet as on 31.03.2020

SOURCES OF FUNDS	SCHEDULE	CURRENT YEAR	PREVIOUS YEAR
UNRESTRICTED FUND			
CORPUS			
GENERAL FUND		3881588.00	
DESIGNATED FUND			
RESTRICTED FUNDS			
LOANS / BORROWINGS			
SECURED			
UNSECURED			990313
CURRENT LIABILITIES & PROVISION			
PROVISSION FOR DEPRECIATION		143867599	143867599
Caution Money		3078802	3736252
Creditors		1283897	1363392
Others Liabilities		4310160	4390694
Short Payment of Salary		613815	409420
TOTAL		157035861.00	154757670.00
APPLICATION OF FUNDS			
FIXED ASSETS			
TRANSIBLE:			
Land & Building		85302256.00	85302256.00
Furniture & Fixture		6035524.00	6035524.00
Books		6800012.00	6800012.00
Laboratory goods		26637694.00	26637694.00
Photocopier		233962.00	233962.00
Computer		16386809.00	16339020.00
Power System		2694159.00	2694159.00
General Facilities		4104059.00	4104059.00
A.C.Machine		437540.00	437540.00
Workshop Equipment		2482350.00	2482350.00
Refrigerator		17000.00	17000.00
INTRANSIBLE			
Software		1903444.00	1903444.00
CAPITAL WORK IN PROGRESS			
INVESTMENTS			
LONG TERM			
SHORT TERM			
CURRENT ASSETS			
LOAN, ADVANCE & DEPOSITS			
Advance to Creditors		66292	79900
Cash at bank:			
SBI 1174288603		191682	82436.00
BOB 29420100000517		525780	350861.00
BOB 29420100000506		3045079	1154901.00
UBI 1302010102143		151060	47380.00
BOB 29420100005031		21159	55172.00
Cash in hand			
TOTAL		157035861.00	154757670.00

Mijanur Rahaman
FCA
Chartered Accountant
M.No.-55162