



# ARIIA

## ATAL RANKING OF INSTITUTIONS ON INNOVATION ACHIEVEMENTS



**MoE**  
Ministry of Education  
Government of India

### Submitted Institute Data for Atal Ranking of Institutions on Innovation Achievements (ARIIA) - 2020-21

Institute Name: FACULTY OF ENGINEERING [ARI-U-0544]

#### List all the departments / centers / units are part of innovation and startup ecosystem of the institute

Department / Center / Unit Name	Type of Department / Center / Unit	Mention the Stream / Discipline / Sector of focus	Department / Center / Unit Level	Program Type	Student / Beneficiary Strength (2019-20)	Academic Staff Strength (2019-20)	Non-academic Staff Strength (2019-20)
Research and Development Cell	Research Unit / Park	Research	UG / PG / PhD	Technical	13	38	2
Faculty of Engineering-Incubation Cell	Incubation Unit	Nurturing the new ideas & Start up	UG / PG / PhD	Technical	16	11	1
Training and Placement Cell	Industry Institute Interface Unit	Training in reputed industries and providing the core job	UG / PG / PhD	Technical	143	6	2
Intellectual Property Rights (IPR) Cell	IPR Cell / Patent Facilitation Unit / Technology Transfer Centre	Aim to protect the creations of the intellect	UG / PG / PhD	Technical	13	3	1
Centre of Excellence (FoE)	Centre of Excellence with Advance Tools & Equipment	To bridge the gap between industry & academia	UG / PG / PhD	Technical	376	15	4
Center for Teaching Learning and Development	Centre of Excellence with Advance Tools & Equipment	To develop aptitude skills & Soft skills	UG / PG / PhD	Technical	841	12	2
Institution Innovation Council (IIC), Faculty of Engineering	Incubation Unit	To develop the culture of innovative projects	UG / PG / PhD	Technical	16	16	5
Faculty of Engineering-Entrepreneur Development Cell	Incubation Unit	To develop spirit of Entrepreneurship among the students	UG / PG / PhD	Technical	78	3	1
Design Centre	Research Unit / Park	To engaging research projects focused on user design	UG / PG / PhD	Technical	310	18	15
Skill Labs	Centre of Excellence with Advance Tools & Equipment	To develop the various skills as per new technology	UG / PG / PhD	Technical	780	8	6
Department of Civil Engineering	Academic Department with lab facility	Civil Engineering	UG / PG / PhD	Technical	166	9	8
Department of Electronics and Communication Engineering	Academic Department with lab facility	Electronics & Communication Engineering	UG / PG / PhD	Technical	134	11	8
Department of Electrical Engineering	Academic Department with lab facility	Electrical Engineering	UG / PG / PhD	Technical	132	10	8
Department of Mechanical Engineering	Academic Department with lab facility	Mechanical Engineering	UG / PG / PhD	Technical	171	12	8

**List all the departments / centers / units are part of innovation and startup ecosystem of the institute**

Department of Computer Sciences	Academic Department with lab facility	Computer Sciences	UG / PG / PhD	Technical	240	19	10
Department of Physics	Academic Department with lab facility	Physics	UG / PG / PhD	Technical	82	8	2
Department of Chemistry	Academic Department with lab facility	Chemistry	UG / PG / PhD	Technical	111	9	2
Department of Humanities	Academic Department with lab facility	Language Lab to develop Communication Skills	UG / PG / PhD	Technical	795	2	1

**Participation of HEI in Innovation & Entrepreneurship Initiatives of Ministry of Education (Till Today)**

Programs/Initiatives	Status	Registration ID
Adopted National Innovation and Start-up Policy at the HEI	Yes	Not Required
Establishment of Institution's Innovation Council (IIC) at HEI	Yes	IIC Registration ID : IC201811293
Trained Innovation Ambassadors at HEI	Yes	Not Required
Participation in Smart India Hackathon (SIH)	Yes	Not Required
Facilitated listing start-ups/ technologies in Young India combating COVID with Knowledge, Technology and Innovation (YUKTI 2.0) portal of MIC	No	Not Required
Participation in National Education Alliance of Technology (NEAT)	No	Not Required

**Details of Co-curricular events/programs related to Innovation, IPR and Entrepreneurship/Start-up Conducted by the HEI**

Srno	Name of Program (Full Name)	Program Theme	Program Type	Program Category	Organizing Department / Centre / Student Body Name	Program Start Date	Program End Date	Program Duration(in Days)	Program Location	Internal Participants (Student)	Internal Participants (Faculty)	External Participants (Student)	External Participants (Faculty)	Total Number of Participants	Had institute spent expenses either from own resource/received fund to organise the program/activity/event?	Did any of the participants received any awards/recognition for startup / innovation ideas / research?
1	one-days' Workshop on Intellectual Property Rights (IPR)	IPR	Orientation Session	Institute Lead Activity	Institutional Innovation Council	19-10-2019 00:00:00	19-10-2019 00:00:00	1	Within Campus	120	80	85	15	300	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees) 5000	No
2	Two Days workshop on Design & Installation of Solar Photovoltaic System	Entrepreneurship/Startup	Awareness	Institute Lead Activity	faculty of engineering	02-12-2019 00:00:00	03-12-2019 00:00:00	2	Within Campus	30	5	0	4	39	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees) 21000	No

**Details of Co-curricular events/programs related to Innovation, IPR and Entrepreneurship/Start-up Conducted by the HEI**

3	Internal Hack A Thon	Innovation	Hackathon	Institute Lead Activity	Faculty of Engineering	30-01-2020 00:00:00	30-01-2020 00:00:00	1	Within Campus	100	0	10	0	110	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	5000	No
4	Research Pedagogy	Innovation	Awareness	Institute Lead Activity	Faculty of Engineering	10-02-2020 00:00:00	10-02-2020 00:00:00	1	Within Campus	60	10	0	0	70	No	No	
5	Industrial Internet of Things (IIOT)	Entrepreneurship/Start-up	Seminar	Institute Lead Activity	EDUCATIONAL INDUSTRIAL TRAINING SOLUTIONS (EdITS)	03-02-2020 00:00:00	03-02-2020 00:00:00	1	Within Campus	60	10	0	0	70	No	No	
6	MATLAB for beginners	Innovation	Skill development	Institute Lead Activity	ASPIRE VISION	04-03-2020 00:00:00	05-03-2020 00:00:00	2	Within Campus	30	5	0	0	35	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	15000	No

**Details of Students, Faculties/Staff Participation/Representation in Co-curricular events/programs related to Innovation, IPR and Entrepreneurship/Start-up at the State, National and (or) International Level (Organized by External Organizations) sent by the HEI**

Srno	Name of Program (Full Name)	Program Theme	Program Type	Organizing Agency / Institute Name	Organizing Agency Type	Program Start Date	Program End Date	Program Duration(in Days)	Participants (Students)	Participants (Faculty)	Total Number of Participants	Awards/Recognitions/Achievements	Award / Position / Recognition Secured	Title of Innovation / Start-up Secured the Award / Recognition	Had institute spent expenses either from own resource/ received fund towards sending delegation to participate / represent the activity / event?	Did any of the participants received any awards/recognition for startup / innovation ideas / research
1	Innovation for resurgent India First Leadership Talk Series (IFLTS), MHRD Innovation Cell	Innovation	Motivational speak	MHRD	Govt. Agency (Central)	22-08-2019 00:00:00	22-08-2019 00:00:00	1	100	50	150	No	---	---	No	No

**Details of Students, Faculties/Staff Participation/Representation in Co-curricular events/programs related to Innovation, IPR and Entrepreneurship/Start-up at the State, National and (or) International Level (Organized by External Organizations) sent by the HEI**

2	Technovation Hackathon	Innovation	Hackathon	Sharda University in association with Greater Noida Industrial Development Authority	Govt. Agency (State)	26-01-2020 00:00:00	26-01-2020 00:00:00	1	40	0	40	Yes	Second	Pothole analyzer	No		Award / Position / Recognition Secured	Second
																	Title of Innovation / Start-up Secured the Award / Recognition	Pothole analyzer
																	Award/Recognition/Achievement Received for	Idea/Innovation/Prototype
3	Seminar on world wet land day	Innovation	Seminar	Nagar Nigam Moradabad	Govt. Agency (State)	23-01-2020 00:00:00	23-01-2020 00:00:00	1	31	0	31	Yes	Students of Department of Chemistry got the water analysis kit on the occasion of world wet land day	world wet land day	No		Award / Position / Recognition Secured	Students of Department of Chemistry got the water analysis kit on the occasion of world wet land day
																	Title of Innovation / Start-up Secured the Award / Recognition	world wet land day
																	Award/Recognition/Achievement Received for	Idea/Innovation/Prototype

**List the Academic Programs on Innovation, IPR and Entrepreneurship Development Offered During the Academic Period (2019-20)**

Srno	Title of Course/Subject Offered	Program Theme	Type of Course	Course Offering Department/Centre/Unit Name	Level of Course	Program Start Date	Program End Date	Program Duration(in Days)	Mode of Delivery	Total Numbers of Participants	Total Numbers of Contact Hours of Course ( Minimum 30 Contact hours)
1	Entrepreneurship	Entrepreneurship/Startup	Elective/Core Credit Course	Bachelor	Management	10-01-2020	31-05-2020	143	Online	70	40

**List the Employment Generation Skill Development Programs Organized by the HEI on Innovation, IPR and Entrepreneurship Development During the Academic Period (2019-20)**

Srno	Title of the Training Program	Program Theme	Type of Course	Course Offering Department/Centre/Unit Name	Program Start Date	Program End Date	Program Duration(in Days)	Mode of Delivery	Total Numbers of Participants	Total Numbers of Contact Hours of Course ( Minimum 30 Contact hours)
1	Oracle and VBdotNET	Innovation	Employment Generation Training Programs	Department of Computing Sciences and Information Technology	01-07-2019	10-08-2019	41	Offline	18	40

2	Lets Play with Python Programming	Innovation	Employment Generation Training Programs	Department of Computing Sciences and Information Technology	01-07-2019	10-08-2019	41	Offline	42	40
3	Android Mobile Application Development	Entrepreneurship/Startup	Employment Generation Training Programs	Department of Computing Sciences and Information Technology	01-07-2019	28-08-2019	59	Offline	20	40
4	Java Essential	Innovation	Employment Generation Training Programs	Department of Computing Sciences and Information Technology	01-07-2019	10-08-2019	41	Offline	27	40
5	IoT with Arduino	Innovation	Employment Generation Training Programs	Department of Computing Sciences and Information Technology	01-07-2019	20-08-2019	51	Offline	19	40
6	CISCO CCNA Routing and Switching	Innovation	Employment Generation Training Programs	Department of Computing Sciences and Information Technology	10-06-2019	01-08-2019	53	Online	9	40
7	PHP Professional	Entrepreneurship/Startup	Employment Generation Training Programs	Department of Computing Sciences and Information Technology	22-06-2019	08-08-2019	48	Offline	48	40

**List the Full Time Faculties had with a Degree (UG/PG/PhD) in Innovation/IPR/Entrepreneurship and (or) Received Specialized Training program of I&E, IPR (MDP, EDP, FDP, Short-term Certificate Course, of minimum 30 hours Duration) conducted by various State, Central Govt. agencies, and Knowledge Agencies in the Academic Period (2019-20)**

Srno	Faculty Name	Department/Centre/Unit Name	Designation	Do you have a degree in I&E & IPR?	Had the faculty received training on I&E & IPR during AY 2019-20
1	PROF. R. K DWIVEDI	FACULTY OF ENGINEERING	DIRECTOR	No	No
2	Dr Pankaj Kumar Goswami	Faculty of Engineering	Associate Professor	No	No

**List Idea/Innovation Centric Student Clubs Are Functional at the HEI with Access to Co-working Space/Work-stations for Students with Facilities & Equipment Available to promote and Support Innovation, Entrepreneurship and IPR Activities in Campus**

Srno	Name of Student Club	Type of Club	Year of Establishment	Type of Facilities Available at the Club	Student Club with Access to Other I&E Facilities at the HEI	No of Programs/Activities Organized by the Student Club During the AY 2019-20	Student Club Team Lead Name	Student Club Team Lead Email	Student Club Team Lead Phone
1	Faculty of engineering entrepreneurship development cell	Idea Club	2018	Co-working Space	Innovation Labs	9	pradeep verma	e-cell.engineering@tmu.ac.in	9411997714

**List the Pre-Incubation Facility (Tinkering Lab/Makers' Space/Design Centre/New Gen IEDC/IEDC/EDC/Innovation Centre/Startup Cell) (>= 600 Sq. Ft. Floor Area)**

**No Data Filled!**

**List the Centre of Excellence (CoE) Facilities with Advance Tools and Equipment at the HEI (>= 1000 Sq. Ft. Floor Area)**

Srno	Name of CoE Facility	Year of Establishment	CoE with Access to Other I&E Facilities at the HEI	Name of the Funding Schemes Available with CoE, if any (Optional)	Facility Details	Total Nos of Dedicated Executive/Management team Strength Engaged at the Facility	Had the CoE Provided any Funding Support for Idea/Prototype/Innovation Development and implementation during the Financial Year 2019-20?	Had institute Generated Income either from Services Offered by CoE Centre/Facilities?	Had institute spent expenses either from own resource/received fund towards Establishment/Operation of CoE Centre/Facilities?						
1	APPLE iMac Lab	2019	Student Clubs	Vice Chancellor's Innovation fund	<table border="1"> <tr> <td>Facility Incharge Name</td> <td>Prof. R.K. Dwivedi</td> </tr> <tr> <td>Facility Incharge Email</td> <td>principal.computers@tmu.ac.in</td> </tr> <tr> <td>Facility Incharge Phone</td> <td>98377 71280</td> </tr> </table>	Facility Incharge Name	Prof. R.K. Dwivedi	Facility Incharge Email	principal.computers@tmu.ac.in	Facility Incharge Phone	98377 71280	10	No	No	Yes
Facility Incharge Name	Prof. R.K. Dwivedi														
Facility Incharge Email	principal.computers@tmu.ac.in														
Facility Incharge Phone	98377 71280														
			Source of Grant / Fund		Agency Name		Agency Type		Total Grants / Funds Received by CoE Facility exists in Campus (In Rupees)						
			-		-		-		0						

**List the Incubation Facilities at the HEI (>= 1500 Sq. Ft. Floor Area)**

<b>No Data Filled!</b>
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**List the Innovation Park/Research Park Facilities at the HEI (>= 5000 Sq. Ft. Floor Area)**

Srno	Name of Innovation Park/Research Park Facility	Year of Establishment	Innovation Park / Research Park with Access to Other I & E Facilities at the HEI	Name of the Funding Schemes Available with Research/Innovation Park, if any (Optional)	Facility Details	Total Nos of Dedicated Executive/Management team Strength Engaged at the Facility	Had the Research Park/Innovation Park Provided any Funding Support for Idea/Prototype/Innovation Development and implementation during the Financial Year 2019-20?	Had institute Generated Income either from Services Offered by Research Park/Innovation Park?	Had the Research Park/Innovation Park Provided any Funding Support for Idea/Prototype/Innovation/Start up/Venture Development and implementation during the Financial Year 2019-20?
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**List the Innovation Park/Research Park Facilities at the HEI (>= 5000 Sq. Ft. Floor Area)**

1	R&D cell	2019	IPR Cell/Technology Transfer Centre, Student Clubs	Vice Chancellor's Innovation Fund	<table border="1"> <tr> <td>Facility Incharge Name</td> <td>Dr Souvik Sur</td> </tr> <tr> <td>Facility Incharge Email</td> <td>drsouvik.engin eering @tmu. ac.in</td> </tr> <tr> <td>Facility Incharge Phone</td> <td>90514 98210</td> </tr> </table>	Facility Incharge Name	Dr Souvik Sur	Facility Incharge Email	drsouvik.engin eering @tmu. ac.in	Facility Incharge Phone	90514 98210	01	No	<table border="1"> <tr> <th colspan="2">Yes</th> <th>No</th> </tr> <tr> <td>Total Annual Income from Training and Skill Development Services (In Rupees)</td> <td>1602000</td> <td></td> </tr> <tr> <td>Total Annual Income from (Technical and Business) Mentoring Services (In Rupees)</td> <td>1181200</td> <td></td> </tr> <tr> <td>Total Annual Income from Office Space and Rental Services to Start-ups/Innovators (In Rupees)</td> <td>00</td> <td></td> </tr> </table>	Yes		No	Total Annual Income from Training and Skill Development Services (In Rupees)	1602000		Total Annual Income from (Technical and Business) Mentoring Services (In Rupees)	1181200		Total Annual Income from Office Space and Rental Services to Start-ups/Innovators (In Rupees)	00	
Facility Incharge Name	Dr Souvik Sur																									
Facility Incharge Email	drsouvik.engin eering @tmu. ac.in																									
Facility Incharge Phone	90514 98210																									
Yes		No																								
Total Annual Income from Training and Skill Development Services (In Rupees)	1602000																									
Total Annual Income from (Technical and Business) Mentoring Services (In Rupees)	1181200																									
Total Annual Income from Office Space and Rental Services to Start-ups/Innovators (In Rupees)	00																									

**List the IPR Cell/Technology Transfer Centre Facilities at the HEI**

**No Data Filled!**

**Provide detail list of Faculties as Mentor to help Ideas/Innovations/Startups**

Srno	Name of the Faculty	Designation of the Faculty	Mentor Expert Area	Years of Experience in Mentorship (In Years)
1	PROF. R. K DWIVEDI	DIRECTOR	Idea/Innovation Development	5
Name of Idea/Innovation/ Startup Mentored		Mentoring Setup [Within (or) Outside] HEI		CIN (in case it is Startup)
TECHNO HACKER		Within		

**Provide detail list of External Experts/Agencies engaged as Mentor to help Ideas/Innovations/Startups**

Srno	Name of the External Expert/Agency as Mentor	Mentor Expert Area					Type of Mentorship
1	IBM CARRER EDUCATION	Idea/Innovation Development					Structured Mentorship
Structured Mentorship Program Name		Start Date	End Date	Total No of Days of Mentorship Program	No of Mentors Involved	Mentorship Cohort Size (No. of Mentee)	Type of Mentee
B. TECH.(CS) WITH COLLABORATION IBM		01-08-2019	31-12-2019	153	04	127	Idea

**List all the Innovations Generated Developed, Completed and Implemented in Ground with Support of Pre-incubation & Incubation facilities at the HEI and Recognitions Received**

Srno	Name of the Innovation Generated with the Support of HEI	Type of Innovation	Nature of Innovation	Name of the HEI Supported Innovation Development	Innovation Developed by	Stage of Innovation /Stage of TRL it started receiving the Support during the FY 2019-20	Stage of Innovation /Stage of TRL reached as on 31st March 2020	Status Pre-Incubation/Incubation Support to Innovation as on 31st March 2020	Had the Innovation Received any Recognition at State, National, International Level Programs during the financial period 2019-20	Had the Innovation Converted into Venture/Startup/SME Unit during the financial period 2019-20	Had Centre/institute provided any Financial support (either own resource or fund received from agencies) in terms of Seed Grant/Fund Support to Idea / Prototype / Innovations Development during the financial period 2019-20	Had the Innovations raised any Seed fund/Angel Investment/VC during the period of receiving pre-incubation/incubation support at your Pre-incubation/incubation or HEI during the financial period 2019-20	Had the Pre-incubation/Incubation Centre/HEI received any income/revenue from Idea/Prototype /Innovations for the pre-incubation/incubation support and the services offered by Pre-incubation/incubation or institute during the financial period 2019
1	A FRACTAL TRIDENT SHAPE LARGE BAND ANTENNA FOR MULTIPLE FREQUENCY-BASED INTERNETS OF THINGS APPLICATIONS	Product Innovation	Technological	Faculty of Engineering	Faculty	TRL 0 : Idea. Unproven concept, no testing has been performed .	TRL 0 : Idea. Unproven concept, no testing has been performed .	Innovation Development Dropped	No	No	No	No	No
		<b>Name</b>		<b>Type</b>		<b>Gender</b>		<b>Email</b>			<b>Contact</b>		
		DR PANKAJ KUMAR GOSWAMI		Faculty		Male		pankajg.engineering@tmu.ac.in			9758469426		
		<b>Name</b>		<b>Type</b>		<b>Gender</b>		<b>Email</b>			<b>Contact</b>		
		DR GARIMA GOSWAMI		Faculty		Female		garimag.engineering@tmu.ac.in			7073006426		
		PROF. R.K. DWIVEDI		Faculty		Male		principal.computers@tmu.ac.in			9837771280		
2	A SMART ADAPTIVE NEURAL FUZZY INTERFACE SUPERVISED ACTIVE POWER FILTER FOR HARMONIC DISTORTION CONTROL IN AC POWER DRIVEN IOT DEVICES	Process Innovation	Technological	FACULTY OF ENGINEERING	Faculty	TRL 0 : Idea. Unproven concept, no testing has been performed .	TRL 0 : Idea. Unproven concept, no testing has been performed .	Innovation Development Dropped	No	No	No	No	No
		<b>Name</b>		<b>Type</b>		<b>Gender</b>		<b>Email</b>			<b>Contact</b>		
		DR GARIMA GOSWAMI		Faculty		Female		garimag.engineering@tmu.ac.in			7073006426		
		<b>Name</b>		<b>Type</b>		<b>Gender</b>		<b>Email</b>			<b>Contact</b>		
		DR PANKAJ KUMAR GOSWAMI		Faculty		Male		pankajg.engineering@tmu.ac.in			9758469426		
		PROF. R. K. DWIVEDI		Faculty		Male		principal.computers@tmu.ac.in			9837771280		

**List all the Ventures/Startups/SME Units Established with Support of Pre-incubation & Incubation facilities at the HEI**

**No Data Filled!**



### List all the Collaborations with External Agencies and Co-Creation of I&E Activities by the HEI

Srno	Collaborated Agency Name	Collaborated Agency Type	Purpose of Collaboration	Type of Support Offered	No. of Student Projects/ Ideas / Innovation / Startups from the HEI get benefitted through this partnership	Date of MOU / Agreement Signed on
1	IBM Pvt Ltd	Corporate / Industry Association	Collaboration with Startups/Industry Associations/Knowledge Agencies to Promote I&E Activities and/or Internship Opportunities	Mentoring	127	19-08-2019

### List the IPs Filed/Published/Granted (Copyright & Designs Only) by the HEI as an Applicant / Co-applicant / Co-owner

<b>No Data Filled!</b>
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### List the IP (Patents only) Filed by the HEI as Applicant / Co-applicant / Co-owner

Srno	Title/Name of Patent	IP Registration Number	Date of Filed/Published (Year, Month)	Application Level	Copy of receipt / application screenshot [PDF or Image]
1	A FRACTAL TRIDENT SHAPE LARGE BAND ANTENNA FOR MULTIPLE FREQUENCY-BASED INTERNETS OF THINGS APPLICATIONS	201911054606	National	2019 - 12	Uploaded
Uploaded		2	A SMART ADAPTIVE NEURAL FUZZY INTERFACE SUPERVISED ACTIVE POWER FILTER FOR HARMONIC DISTORTION CONTROL IN AC POWER DRIVEN IOT DEVICES	National	2020 - 03
		3	LOW COST VOICE ENABLED MULTI SENSE SMART STICK FOR VISUALLY IMPAIRED PERSON	202011009013	National

### List the IPs hold by the Innovation teams/Startups Incubated at the Pre-incubation/incubation Unit of the HEI

<b>No Data Filled!</b>
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### List the IP Commercialized/Transferred Published & Granted to HEI as Co-applicant/Co-owner

<b>No Data Filled!</b>
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Responsibility for accuracy and authenticity of data lies with the concerned institution.