

Darbhanga College of Engineering, Darbhanga, Bihar. AICTE 1-43388094



Annual Report DCE, Darbhanga

ANNUAL REPORT 2019-2020

Darbhanga College of Engineering, Darbhanga, Bihar.

<https://www.dce-darbhanga.org/>



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MESSAGE FROM THE PRINCIPAL

It gives me immense pleasure to report on the array of activities that Darbhanga College of Engineering (DCE), Darbhanga, has covered in the academic year 2019-2020. The guidance of the Board of Governors, the efforts put in by the faculty and staff of the college and the support extended by the Ministry of Human Resources and Development and Technical Education Quality Improvement Program-III and the Department of Science and Technology, Government of Bihar has led to the successful performance of DCE, Darbhanga as an institution in the academic year 2019-2020 in both academics and administration.



**Prof. Achintya,
Principal**

This Annual Report 2019-2020 reflects the academic excellence that DCE, Darbhanga, has been striving towards, the innovative teaching-learning environment and practices that the faculty of the college has been engaged in and the research that the institute promotes. The Annual Report 2019-2020 categorically presents the academic activities that the students of DCE, Darbhanga has extended to the students. DCE, Darbhanga, has witnessed technical events like Hackathon and Robotics. This year, we have also given impetus to promoting several trainings for students as well as for faculty members to enhance teaching-learning methodology. Workshops and trainings of students have been targeted towards better placement opportunities. This has given us visible result of a better placement record this year.

As for the administrative activities, the concerned faculty and staff members have together driven DCE, Darbhanga, to perform better and utilize funds in an optimal way. Even during the COVID-19 crisis, the administration has endeavored to strive and give the best of its potential to execute all administrative works as well as smooth functioning of the institute.

However, to carry forward this growth, a shift to the new building premises is urgent. We are looking forward to shifting to the new campus and promote better educational opportunities to the students of DCE, Darbhanga. At the end, I must once again thank all the esteemed members to have made this growth possible for DCE, Darbhanga.

ABOUT THE INSTITUTE

Darbhanga College of Engineering (DCE), Darbhanga, is a government engineering college under the direct administrative control of the Govt. of Bihar in India. It was inaugurated by Shri Nitish Kumar, Chief Minister of Bihar in 2008. It is affiliated to the **Aryabhata Knowledge University, Patna** since 2011. Earlier DCE, Darbhanga was affiliated to Lalit Narayan Mithila University (LNMU), Darbhanga. The purpose behind establishment of DCE, Darbhanga was to provide to the growing needs of increasing technical demands and make it as a state-of-the-art technology centre and research hub. The campus is situated at NH57 near Mabbi, a suburb of Darbhanga. This is 1 km far from Darbhanga bus station and 3 km from Darbhanga railway station. The Civil Airport, to be operated soon, is just 10 km away from the main campus of the college.

DCE, Darbhanga, holds a privileged status to have received institutional support as well as support of manpower through MHRD NPIU's, **Technical Education Quality Improvement Program -Phase III** in collaboration with the World Bank since September 2017. It is one of the 7 Engineering Colleges in Bihar to have received TEQIP-III support and funding to improve the quality of Technical Education in the state. DCE, Darbhanga is thus witnessing a massive change for the better in its quality of education. DCE, Darbhanga boasts of a qualified manpower recruited either through BPSC (Govt. of Bihar) or TEQIP III who work dedicatedly to provide the best of Engineering knowledge to the students.

ADMISSION PROCESS

The Under-Graduate Programme of Bachelor of Technology (B.Tech) admissions are merit-based and 2019 onwards, admission is done through selection of students based on merit in IIT-JEE conducted by the National Testing Agency.

Prior to this, UG admissions were done through the Bihar Combined Entrance Competitive Examination (BCECE) conducted by Bihar Combined Entrance Competitive Examination Board, under Bihar Combined Entrance Competitive Examination Act, 1995 of Bihar Government.



DCE, Darbhanga, Campus Aerial view

BOARD OF GOVERNORS

Sl. No.	Name	Email-id & Contact No.	Designation
1.	Padma Shri. Manas Bihari Verma Retired Scientist (ISRO)	mb_verma@rediffmail.com Mob: 9934663428	Chairman
2.	Dr. Madan Kumar Jha, Professor IIT Kharagpur	madan@agfe.iitkgp.ac.in	Member
3.	Mr. Prabhat Kumar Sinha, Co-founder and Director, Astric Computers (India) Pvt. Ltd.	prabhatsinha@astric.in	Member
4.	Director, DST Govt. of Bihar , State Government Nominee	directordst@bihar.gov.in	Member
5.	Faculty Member of the Institution Nominated by Principal - 02	1. Dr. R.K. Jha, rkjhabce1985@gmail.com 2. Mr. C. P Singh profpcsinghbce@gmail.com	Member
6.	Educationist / Industrialist Nominated by Principal - 01	Mr. Om Prakash Kheria 9334934666	Member
7.	AICTE Nominee - 01		Member
8.	Aryabhata Knowledge University, Patna, Nominee – 01		Member
9.	Prof. Achintya Principal, DCE, Darbhanga	dcedbg@rediffmail.com Mob: 9835050340	Member Secretary

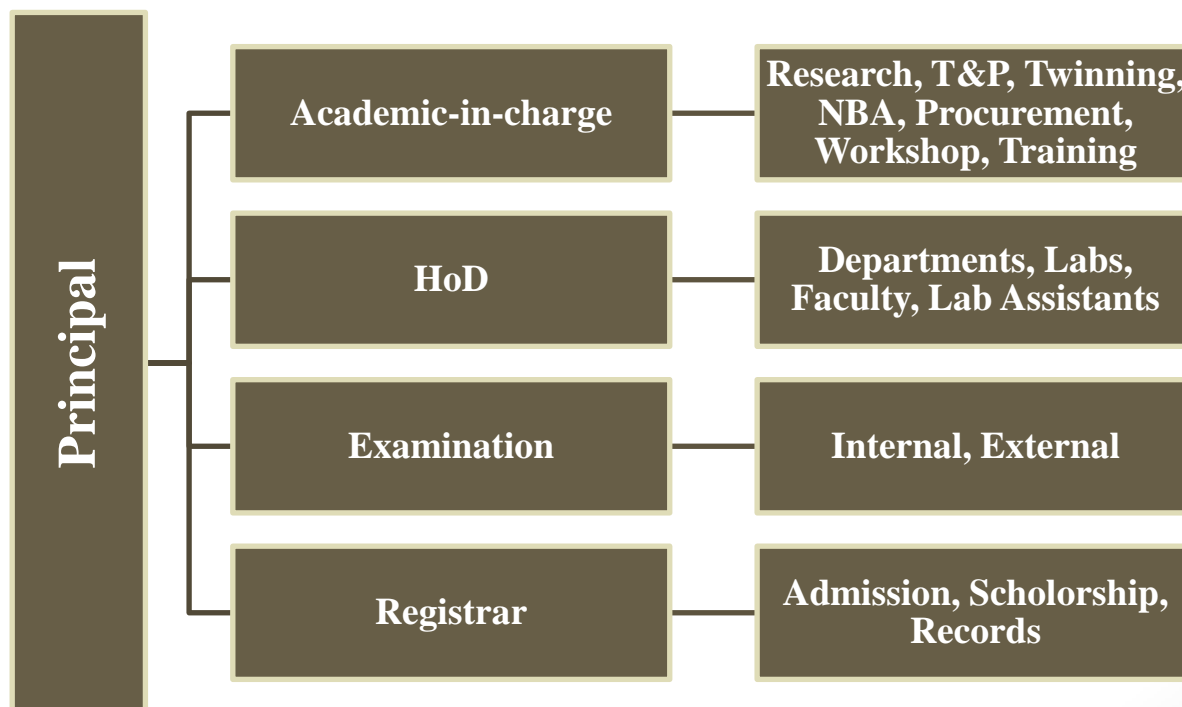


BOARD OF GOVERNORS

Sl. No.	Board of Governors (BoG) Meetings	Date of Meetings
1	BOG - 1	29-11-2017
2	BOG - 2	28-03-2018
3	BOG - 3	18-09-2018
4	BOG - 4	15-12-2018
5	BOG - 5	28-03-2019
6	BOG - 6	27-06-2019
7	BOG - 7	30-08-2019
8	BOG - 8	09-10-2019
9	BOG - 9	09-12-2019
10	BOG - 10	26-02-2020
11	BOG - 11	16-06-2020

Minutes of all BOG meetings is available at: <https://www.dce-darbhanga.org/teqip-iii/teqip-documents/>

ORGANIZATIONAL STRUCTURE OF INSTITUTE



FACULTY

The faculty members of DCE, Darbhanga, create an extraordinary teaching and learning community in this college. The student to faculty ratio is 23:1.

Branch	Max. No. of Students	Number of Faculty					
		Regular			TEQIP-III		
		Professor	Associate	Assistant	Professor	Associate	Assistant
Mechanical	276	0	1	2	0	0	7
Civil	276	1	0	2	0	0	6
Computer Science	276	0	0	2	0	0	5
Electrical	276	0	0	2	0	0	10
Mathematics		0	0	1	0	0	1
Physics		0	1	0	0	0	2
Chemistry		0	0	1	0	0	2
English		0	0	0	0	0	1
Total	1104	13			34		



Teaching Staff and Non-teaching staff

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAM - TEQIP-III

Technical Education Quality Improvement Program (TEQIP) of MHRD, Government of India (TEQIP), assisted by the World Bank has been implemented in the nation to improve the quality of technical education system in the country, and, **DCE, DARBHANGA** is privileged to be selected for **Technical Education Quality Improvement – III (TEQIP III) Program of NPIU, MHRD**.

The third phase of Technical Education Quality Improvement Program, referred to as TEQIP-III, is fully integrated with the Twelfth Five-year Plan objectives for Technical Education as a key component for improving the quality of Engineering Education in existing institutions with a special consideration for low income states and special category states and support to strengthen a few affiliated technical universities to improve their policy, academic and management practices.

TEQIP III Cell, DCE, Darbhanga

Dr. M Asjad Mokhtar

TEQIP-III Coordinator

drasjadmokhtar@gmail.com

1. Dr. Makkhan Mishra

Nodal Officer Academic

drmakhanmishra@gmail.com

2. Mr. Chandrashekhar Prasad Singh

Nodal officer Procurement

profcpsinghbce@gmail.com

3. Dr. Raman Kumar Jha

Nodal Officer, Finance

rkjhabce1985@gmail.com

Office Staff

Mr. Zulfekar Ahmad

Office Assistant

Zulfekar_ahmad@gmail.com

Mr. Ashutosh Singh

Account Assistant

Ashutoshsingh2555@gmail.com

Mr. Shyam Mohan Mishra

Messenger

mohanmishrashyam@gmail.com

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAM - TEQIP-III

Mentor Institute - IIT Patna

Dr. Sumanta Gupta
Coordinator, IIT Patna
Sumanta@iitp.ac.in

Dr. Pratibhamoy Das
Nodal Officer Academic, IIT Patna
pratibhamoy@iitp.ac.in

Mentor

Dr. K. S. Jayantha
Principal, MCE Hassan
ksj@macehassan.ac.in

Performance Auditor

Prof. B. K. Roy
NIT- Silchar
bkrnits@gmail.com

NPIU

Prof. (Dr.) P M Khodke
Central Project Administrator
cpa.npiu@gov.in

SPIU

Dr. Bhanu Pratap Singh,
State Project Administrator , SPA, Bihar
Contact: noAcad.bihar@gmail.com

NATIONAL BOARD OF ACCREDITATION [NBA] CELL

Within two years of engagement of TEQIP-III faculty members, all the four disciplines of engineering at DCE, Darbhanga, started with the process of **NBA** by uploading **Self-Assessment Report (SAR)**, **Vision** and **Mission** of the institute and all the departments have been decided by the NBA cell.

The Cell has also organized two workshops for the faculty of the college to train the faculty members on Course Outcome, Program Outcome, their mapping and importance of NBA. Under the *Margdarshak* scheme of AICTE, New Delhi, one faculty member of NIT, Patna is continuously monitoring and supervising the development under NBA. The detail of NBA cell is as follows:

Coordinator	Mr. Amit Kumar
Branch co-ordinator (EEE)	Mr. Abhishek Sharma
Branch co-ordinator (ME)	Mr. Mukesh Kumar
Branch co-ordinator (CE)	Mr. Loknath Kumar
Branch co-ordinator (CSE)	Mr. Anand Kamal

Sl. No.	Department	SAR Upload Date	Application No. & Date of Registration
1.	Mechanical Engineering	11-06-2019	3702 & 03/05/2019
2.	Civil Engineering		
3.	Electrical & Electronics Engineering	12-09-2019	3967 & 16/08/2019
4.	Computer Science & Engineering		



NBA Cell (Review meeting)

NBA CELL

Name of Activity	Dates
Registration Fee of the institute with NBA	06 th April 2018
CE and ME Branch Registration (3702)	17 th May 2019
Visit for Training by Prof. S. N. Sapali	29 th May 2019
SAR Post Submission review for mock evaluation from BMS College of Engineering, Bangalore	29 th - 30 th June 2019
Organised 3-day Workshop on Preparation for NBA	23 rd - 25 th July 2019
EEE and CSE branch Registration (3967)	12 th September 2019

Margdarshak visit under AICTE scheme

AICTE/ MHRD has devised a new scheme called *Margdarshak*. In this scheme, *Margdarshaks - Mentors* - are identified for institutions which are yet to get NBA accreditation. These *Margdarshaks* can be serving or preferably superannuated, willing and motivated teachers having good knowledge of the process of accreditation and can devote adequate time to make required visits to guide these Institutions. These ‘Margdarshaks’ function from prestigious institutes which are identified as Nodal centers/ Mentor Institutes.

Prof. L. B. Roy (Professor, Dept. of CE , NIT Patna) is appointed as *Margdarshak* for DCE, Darbhanga, by AICTE on 26th Sept. 2019.

Date of the Event	Suggestions by Prof. L. B. Roy
19 th - 20 th October, 2019	Requirement for a systematic Feedback Mechanism
23 rd - 24 th November, 2019	Display and visibility of NBA facts and statistics on Notice Boards
16 th - 17 th December, 2019	Alumni Meet and Company Feedback Process
31 st December, 2019 & 01 st January, 2020	Hostel Cleanliness and sanitisation to be given priority
25 th January, 2020	Request for handover of New Building at the earliest
21 st - 22 nd February, 2020	Digitization of Library
20 th - 21 st March, 2020	Prepared Updated SAR

NBA CELL

Workshops Attended and Organized by NBA Cell

Sl. No	Name of the Event	Date of the Event	Venue
1.	2- Day Workshop on Outcome Based Education (OBE)	20 th -21 st February, 2018	DCE, Darbhanga
2.	2- Day Workshop on Exams Reforms and OBE Integration	19 th - 20 th July, 2018	Hotel Chanakya, Patna
3.	1- Day Workshop on NBA Accreditation	13 th February, 2019	DCE, Darbhanga
4.	NBA Meeting	18 th June 2019	SPIU, Bihar, Taramandal
5.	2- Day Workshop on NBA and SAR Preparation	29 th -30 th June 2019	DCE, Darbhanga
6.	Organised 3-day Workshop on Preparation for NBA	23 rd -25 th July, 2019	Hotel Panache, Patna



Training activities by NBA Cell

2019/6/29 17:15

ACADEMIC PROGRESS

Sl. No.	Branch/ Program 2019-2020 Academic Year	Total no. of Students in 1 st Year	Transitio n rate (Overall)	Transitio n rate (SC/ST)	Transitio n Rate (Female)
1.	Civil Engineering	67	85.07 %	63.64 %	100 %
2.	Mechanical Engineering	64	57.81 %	63.64 %	40 %
3.	Electrical & Electronics Engineering	65	96.92 %	83.33 %	100 %
4.	Computer Science & Engineering	65	98.46 %	81.82 %	100 %

DEPARTMENT OF MECHANICAL ENGINEERING [ME]

Mechanical Engineering is the largest of the engineering disciplines. Being a mother trade, it forms the foundation for other disciplines while boasting a plethora of opportunities in the field of technology. In DCE, Darbhanga, the state of the art workshop, laboratories, advanced machineries and instruments have provided our students ample exposure to become industry-ready human resources. My best wishes to all the students and alumni of DCE, Darbhanga.



**Mr. C. P Singh,
Associate Professor**



Faculty of Department of ME

Program	Strength (total number of students)		
	Boys	Girls	Total
1 st year ME	58	6	64
2 nd year ME	48	3	51
3 rd year ME	62	7	69
4 th year ME	66	4	70

DEPARTMENT OF MECHANICAL ENGINEERING [ME]

1. Major Achievements of Department

- a) No. of students qualified for GATE - 5
- b) CRS projects - 02 (27.98 Lakh)-
 - Mr. Navdeep Pandey (Rs.13.35 lakh)
 - Mr. Rajat Gupta (Rs.14.43 lakh)
- a) No. of students selected for Student Project Proposal under BCST- 16 (worth Rs. 1,60,000/-)

2. Details of Lab Equipment:

Production Lab:

Optical Microscope, Surface Roughness Tester, Injection Molding Machine, Wire EDM, Robot, Radial Drilling machine, Auto Collimeter, Pedestal Grinder, Dynamometer force measurement, Surface Grinder, TIG, MIG, Welding Apparatus, Micrometer and Telescopic gauge

Design Lab :

Brinell cum Rockwell Hardness Testing Machine, Static and Dynamic Balancing Apparatus, Universal Speed Governor Apparatus, Model of Different Mechanism, Bending and Deflection apparatus, Strain measurement, Universal Vibration Apparatus, Gyroscopic Test Rig. cum Analysis Apparatus

Workshop Lab:

Loading Pad, Plain Discs, Porous Stones, Rubber Sheaths, Drainage Tube, Triaxial Cell, Mould, Solder Torch, Brazing Torch, Gas Welding Apparatus, TIG Welding, MIG Welding, Hand Blower, Muffle Furnace, Power Hacksaw with Adjustable Blade, Surface Grinder, 3D Printer With 3D Scanner

Thermal Lab:

Redwood Viscometer, Pipe Friction Apparatus, Composite Wall Apparatus, Heat Transfer in Natural Convection, Flash and Fire Point Apparatus, 2-Stroke Petrol Engine Model, 4-Stroke Petrol Engine Model, 2-Stroke Petrol Engine Test rig, Two Stage Air Compressor Test rig, Vapour Absorption Test rig, Recirculating AC Trainer, Francis Turbine, Model of Cochran Boiler, Model of Lancashire Boiler, Model of Babcock and Wilcox Boiler, Model of Impulse steam turbine, Model of Reaction steam turbine, Reciprocating Pump Test Rig., Kaplan Turbine, Pin Fin Apparatus, Forced Convection Heat Transfer Apparatus, Critical Heat Flux Apparatus, Emissivity Measurement Apparatus.

DEPARTMENT OF MECHANICAL ENGINEERING [ME]

3. Workshops and Internship Programs Attended by Faculty

Sl. No	Name of faculty	Name of Workshop and Place	Date of workshop
1.	Dr. M. A. Mokhtar	Seminar on Good Governance (SPIU, Bihar)	15-07-2019 to 15-07-2019
2.	Mr. Madhav Ram	Training Program on Advanced Pedagogies (IIT, Kharagpur)	01-07-2019 to 05-07-2019
		How to Conduct Experiment? (MIT Muzaffarpur)	17-12-2019 to 19-12-2019
3.	Mr. Vishnu Kumar	How to Conduct Experiment? (MIT, Muzaffarpur)	17-12-2019 to 19-12-2019
		Seminar on Good Governance(SPIU, Bihar)	15-07-2019 to 15-07-2019
4.	Mr. Mukesh Kumar	Workshop on Preparation for NBA (SPIU, Bihar)	15-07-2019 to 15-07-2019
		Training Program on Advanced Pedagogies (IIT, Kharagpur)	01-02-2019 to 02-02-2019
5.	Mr. Navdeep Pandey	Orientation Program on CRS (NPIU, MHRD, New Delhi)	16-7-2019 to 16-7-2019
6.	Mr. Prashant Kumar Singh	Training Program on Advanced Pedagogies (IIT, Kharagpur)	01-07-2019 to 05-07-2019
		Procurement Review and Training on Procurement (SPIU, UP)	17-12-2019 to 18-12-2019
7.	Mr. Prabhakar Kumar	Training Program on Advanced Pedagogies (IIT, Kharagpur)	01-07-2019 to 05-07-2019
8.	Mr. Rajat Gupta	Training Program On Advanced Pedagogies (IIT, Kharagpur)	01-07-2019 to 05-07-2019
		Orientation Program On CRS (NPIU, MHRD, New Delhi)	16-7-2019 to 16-7-2019
9.	Mr. Vikash Kumar	Training Program on Advanced Pedagogies (IIT, Kharagpur)	01-07-2019 to 05-07-2019

DEPARTMENT OF MECHANICAL ENGINEERING [ME]

4. Workshop and Internship Programs Attended by Students

Sl. No.	Name of Workshop and place	Number of students	Date of workshop
1.	Robotics and 3D Printing Workshop	02	Summer Internship
2.	Automobile Workshop- Mahindra, HR Shiv Shakti Wahan Pvt. Ltd., Darbhanga	30	Summer Internship
3.	DVC Bokaro Thermal Powers, Bokaro Thermal	01	Summer Internship
4.	HR Manager motors Pvt Ltd. Patna	18	Summer Internship
5.	Ananya Auto Agency Pvt. Ltd (Tata Motors) Nasriganj, Digha Patna	12	Summer Internship

5. Workshops and Internship Programs Conducted in College

Sl. No.	Name of Workshop	Date of Workshop	Number of Participants
1.	Workshop on C/C++	24-02-2020 to 28-02-2020	28
2.	Motivational Lectures	06-09-2019 to 26-09-2019	70
3.	Auto CAD	19-08-2019 to 23-08-2019	31
4.	Solid work	16-09-2019 to 20-09-2019	47
5.	Professional Skill/ Interview Skill Training	11-11-2019 to 20-11-2019	All Branches
6.	Soft skills	02-09-2019 to 07-09-2019	31
7.	Java Program	26-08-2019 to 30-08-2019	05

DEPARTMENT OF MECHANICAL ENGINEERING [ME]

6. Number of Students Qualified in Placements

Name of Company	Number of Students
WIOSKA MOLDING PVT. LTD.	02
GRIFEO TECHNOLOGY	03

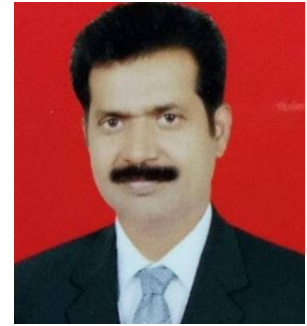


Workshop and Lab: Department of ME

DEPARTMENT OF CIVIL ENGINEERING [CE]

Darbhanga College of Engineering, Darbhanga is one of the best colleges for Civil Engineering. It gives me immense pleasure to know that DCE, Darbhanga, is coming out with the annual report. The main objective of the department is to develop the students both personally and professionally to achieve a successful career in Industry, Research and Academics through regular classes, co-curricular and extra-curricular activities.

I sincerely appreciate and congratulate the honorable principal and the entire team of the college for their underletting efforts in compiling this annual report.



Mr. S.S. Choudhary
Head of Department



Faculty of Department of CE

Program	Strength		
	Boys	Girls	Total
1 st year CE	62	5	67
2 nd year CE	54	6	60
3 rd year CE	68	3	71
4 th year CE	61	8	69

1. Major Achievements of Department

- a) No. of students qualifying GATE – 11
- b) Externally funded projects- 01 (Rs. 3 Lakh)- Mr. Jitendra Kumar (Water Sustainability in Darbhanga District)
- c) No. of selected students Student Project Proposal under BCST- 08(Worth Rs. 80,000/-)

DEPARTMENT OF CIVIL ENGINEERING [CE]

- d) No. of students trained under Employability Skills Training- 49
- e) No. of students trained under Basic English Training- 56
- f) Department signed MoUs with 2 industries in order to enhance Training, Placement and Internship

2. Details of Lab Equipment

Name of Equipment	Quantity
Universal Testing Machine Computerized, Capacity, 100 Ton, 6 pillar type with Hydraulic Jaws.	01
California Bearing Ratio (C.B.R.) test apparatus equipped with all accessories.	01
Triaxial Test Apparatus (Digital): Loading Pad, Plain Discs, Porous Stones, Rubber Sheaths, Drainage Tube, TRIAXIAL CELL, Mould	01
Direct Shear Test Apparatus: Loading Unit, Loading Yoke, Strain Dial Gauge, Shear Box Assembly, Plain Gripper Plates, Perforated Gripper Plates, Porous Stones, Top Loading Pad	01
Compaction Test Apparatus: Proctor Mould, Rammer: Weight 2.5 And 4.5 Kg, Sample Extruder, Mixing Pan, Spoon, Trowel, Spatula, Straight Edge, Graduated Cylinder, Moisture Tins.	01

3. Workshops and Internship Programs Attended by Faculty

Sl.No.	Name of Faculty	Name of Workshop and Place	Date of Workshop
1.	Mr. Loknath Kumar	Training Program on Advanced Pedagogies (IIT, Kharagpur)	01-07-2019 to 05-07-2019
		How to Conduct Experiments? (MIT, Muzaffarpur)	17-12-2019 to 19-12-2019
2.	Mr. Aditya Kumar	Training Program on Advanced Pedagogies (IIT, Kharagpur)	01-07-2019 to 05-07-2019
3.	Mr. Aakash	Induction Training - Phase I (NITTTTR, KOLKATA)	03-02-2019 to 14-02-2020
		Earthquake Disaster Management Guidelines, Patna	28-01-2020 to 29-01-2020
		Professional Development Program (IIM,Trichy)	26-08-2019 to 30-08-2019
		How to conduct experiments (MIT, Muzaffarpur)	17-12-2019 to 19-12-2019

DEPARTMENT OF CIVIL ENGINEERING [CE]

Sl.No	Name of Faculty	Name of Workshop and Place	Date of Workshop
1.	Mr Aakash	Induction Training - Phase I (BCE, Bhagalpur)	18-11-2019 to 22-11-2019
		Professional Development Program, (IIM, Trichy)	26-08-2019 to 30-08-2019
2.	Mr. Prashant Kumar	Recent Advancement in Geotechnical Engineering, (MIT, Muzaffarpur)	28-07-2019
3.	Mr. S.S Choudhary	How to conduct experiments (MIT, Muzaffarpur)	17-12-2019 to 19-12-2019
		Induction Training - Phase I (BCE, Bhagalpur)	18-11-2019 to 22-11-2019
		Induction Training - Phase I (NITTTR, KOLKATA)	27-01-2020 to 07-02-2020
4.	Mr. Ahsan Rabbani	Clean Steel Technology (NIT, Durgapur)	22-07-2019 to 26-07-2019
		Earthquake Disaster management Guidelines, Patna	28-01-2020 to 29-01-2020
		Science, Technology, Society and Ethics (STSE), NIT, Patna	14-12-2019 to 15-12-2019
		Recent Advancement in Geotechnical Engineering, (MIT, Muzaffarpur)	28-07-2019
5.	Mr. Jitendra Kumar	TEQIP Program, (IIM Bodhgaya)	10-02-2020 to 14-02-2020
6.	Mr. Ravi Ranjan Kumar	Recent Advancement in Geotechnical Engineering, (MIT Muzaffarpur)	28-07-2019

DEPARTMENT OF CIVIL ENGINEERING [CE]

4. Workshops and Internship Programs Attended by Students

Name of Workshop and Place	Number of students	Date of workshop
The Executive Engineer Flood Control Division, Darbhanga	13	Summer Internship
Tech Gayan, IIT Patna	09	19-10-2019 to 20-10-2019
Student Interaction Programme	60	18-07-2019
The Executive Engineer, Building Construction Department, Darbhanga Division	26	Summer Internship

5. Workshops and Internship Programs Conducted in College

Name of workshop	Date of workshop	Number of participants
C/C++ (Workshop)	24-02-2020 to 28-02-2020	32
Motivational Lectures	6-9-2019 to 26-09-2019	64
Auto CAD	19-08-2019 to 23-08-2019	36
STAADPRO	23-09-2019 to 27-09-2019	40
Professional Skill/ Interview Skill Training	11-11-2019 to 20-11-2019	All Branches
Soft skills Development	02-09-2019 to 07-09-2019	All Branches

6. Number of Students Qualified in Placements

Name of company	Number of students
OKAYA INFOCOM	01



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING [EEE]

It gives me immense pride and pleasure that I have been given the opportunity to lead the Department of Electrical and Electronics Engineering of this esteemed & prestigious institution. Electrical & Electronics Engineering is an exciting and dynamic field that deals with the technology of electricity, especially the design and applications of circuitry and equipment for power generation and distribution, machine control and communications. The department tries to provide updated knowledge and skills to the students and strives to make them industry ready.



Mr. Prabhat Kumar
Head of Department



Faculty of Department of EEE

Program	Strength		
	Boys	Girls	Total
1 st year EEE	48	17	65
2 nd year EEE	33	17	50
3 rd year EEE	61	15	76
4 th year EEE	51	17	68

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING [EEE]

1. Major achievements of department

- a) Mr. Abhishek Sharma, Assistant Professor, scored Elite Silver certificate in NPTEL course
- b) For the first time, a student of DCE, Darbhanga, from EEE has published a paper in IEEE International Conference.

2. Details of computer/ software procured

Number of Laptops -11	Number of Desktops - 30
Software - 03	Date of Purchase
EDWinXP	01-02-2019
Digsilent (DigSILENT Power Factory Software)	24-07-2019
Caspoc Software	31-07-2019

3. Details of Lab equipment

Name of equipment	Quantity
Kirchhof's Current Law Trainer	06
Super Position Theorem	06
Bench Type Multimeter	01
AC Position Servosystem Trainer Set	02
Dso	10
Function Generator	10
PCB Design And Prototype Lab Station	01

4. Workshop and internship program attended by faculty

Sl. No.	Name of faculty	Name of Workshop & Place	Date of workshop
1.	Mr. Deepak Singh	1. Advanced Pedagogy and Digital Tool for TEQIP faculty members, IIT Kharagpur,	01- 05 July 2019

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING [EEE]

Sl.No.	Name of faculty	Name of Workshop & Place	Date of workshop
2.	Mr. Sanjay Kumar	1.PDT-IIM Trichy 23rd to 27th September 2.E-yantra Workshop, Govt. Polytechnic College, Muzaffarpur, 3.Lab Training Workshop, MIT MUZAFFARPUR,	01- 05 July 2019 17th to 19th Dec. 2019
3.	Mr. Ravi Kumar	1. FDP on Training Program on Advanced Pedagogies, IIT Kharagpur 2. FDP Robotics and Automation, IIT Madras	01- 05 July 2019 17-28 February 2020
4.	Mr. Prabhat Kumar	1. Induction Phase, NITTTR Kolkata,	27 January, 2020 - 07 February, 2020
5.	Mr. Abhishek Sharma	1. Two-Day Workshop on NBA and SAR PREPARATION 2. Training on Advanced Pedagogy & Digital Tool , IIT Kharagpur 3. FDP on Machine Learning and Image Processing (MLIP 2019) organised by LNJPIT Chapra and IIT Patna 4. FDP on Micro grid: Operation, Control and Protection organised by IIT, Patna	29- 30 June, 2019 01- 05 July,2019 22-26 July,2019 23-27 September, 2019
6.	Mr. Akhil Mohammed KK	1. FDP on Advanced Pedagogy & Digital Tool , IIT Kharagpur 2. FDP on Research Methodology in NIT Patna	01-05 July,2019 03-21June, 2019
7.	Mr. Tabish Shanu	1. FDP on Research Methodology in NIT Patna 2. PDT in IIM Bodhgaya 3. Two weeks faculty training on future skill technologies of IT ITeS	3 - 21st June 2019 25-29th Nov. 2019

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING [EEE]

Sl.No	Name of faculty	Name of Workshop & Place	Date of workshop
8.	Dr. Ravi Ranjan	<p>1. A Five Day Continuing Education Program on “Fabrication of Optoelectronic Devices & Sensors - Hands-on Experience (FODS-2019)” National Institute of Technology, Warangal</p> <p>2. Summer Training Program On Advanced Digital Pedagogies at IIT Kharagpur,</p> <p>3. International Conference on Optics & Electro-Optics (ICOL-2019) at, Instruments Research and Development Establishment (IRDE), Dehra Dun,</p> <p>4. Faculty Training on Robotics & Automation at IIT Kanpur</p> <p>5. Online FDP on “Nanomaterials and Devices” organised by NITTR Chandigarh</p> <p>6. Online FDP on "Moodle Learning Management System - exploring the new horizons of teaching learning”</p>	<p>17 -21 June, 2019</p> <p>01- 05 July, 2019</p> <p>19 -22 October,2019</p> <p>17- 28 February2020</p> <p>11th -15th May2020</p> <p>15th – 21st May 2020</p>
9.	Mr. Diwakar Verma	<p>1. FDP on “Research Methodology” at NIT, Patna</p> <p>2. Summer Training Program on Advanced Digital Pedagogies at IIT, Kharagpur</p> <p>3. Faculty Training on Robotics & Automation at IIT, Roorkee</p> <p>4. Workshop on Professional Ethics For Teachers: Duties & Responsibilities, organised by R. K. College, Madhubani,</p>	<p>3 -21, June, 2019</p> <p>01- 05 July, 2019</p> <p>1-13 March, 2020</p> <p>24 May, 2020</p>
10.	Ms. Sweta Kumari	<p>1.FDP at NIT Patna “Research Methodology”</p> <p>2.FDP at IIT Kharagpur “Advance Pedagogy & Digital Tool”</p> <p>3.Train the Trainers workshop “Communication English for Employability”</p>	<p>03- 21, June 2019</p> <p>01-05, July 2019</p> <p>13-17, Oct. 2019</p> <p>09-13, Jan. 2020</p>

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING [EEE]

Sl.No	Name of faculty	Name of Workshop & Place	Date of workshop
12.	Mr. Shakti Prasad Senapati	1. Faculty Training on “Internet of Things (IoT)” conducted by IIT, Bombay 2. Workshop on “Train the Trainer” Focusing on Business English Exams conducted by Cambridge Assessment English, UK at BCE, Patna. 3. “Advanced Pedagogy & Digital Tool Training” conducted by IIT, Kharagpur.	24-28 February, 2020 14-17 October, 2019 1-5 July, 2019
13.	Dr. Amit Kumar	1. FDP - Advanced Pedagogy and Digital Tool for TEQIP faculty members, IIT Kharagpur	01- 05 July, 2019

5. Workshop and internship program attended by students

Name of workshop and Place	Number of students	Date of workshop	Batch
Techgyan E-CELL IIT Patna Workshop (IIT Patna)	11	19.10.2019-20.10.2019	1 st Year Students (2019-2023)
Robotics and Drone Technology (DCE, Darbhanga)	14	20.01.2020-26.01.2020	
NIT, Durgapur	01	08.02.2020-09.02.2020	
KSHITIJ2020 Unity Workshop (IIT, Kharagpur)	05	17.01.2020-19.01.2020	
Workshop on Embedded System	32		2 nd Year Students (2018-2022)
Training on Communication Skills	32		

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING [EEE]

Name of workshop and Place	Number of students	Date of workshop	Batch
Workshop in IIT Patna	27		2 nd Year Students (2018-2022)
Training in IIT Kanpur	01		
Training in TRTC	29		
Workshop on Robotics and Drone Technology	06		
Internship at Internshala	47		
Bootcamp and Hack-A-Thon on Emerging Technologies, DCE Darbhanga	08	12-15 September 2019	3 rd Year Students (2017-2021)
PLC & SCADA Workshop, DCE Darbhanga	42	16-20 September 2019	
Tech Gyan Workshop, IIT Patna	10	19-20 October 2019	
Winter Training Program, IIT Kanpur	01	3-17 January 2020	
AutoCAD Training, TRTC Patna	04	16 Jan-15 Feb 2020	
Workshop on Robotics & Drone Technology, DCE Darbhanga	15	20-25 January 2020	4 th Year Students (2016-2020)
Training at IIT Patna	03	25-06-19	
Training at IIT Patna	16	27-03-19	

6. Workshop and internship program conducted in college

Name of workshop	Date of workshop	Number of participants
Bootcamp and Hackathon On Emerging Technologies	12-15 September, 2019	125
Workshop on Idea Generation and Entrepreneurship	6 August, 2019	60

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING [EEE]

Name of workshop	Date of workshop	Number of students
Workshop on Robotics and Drone Technology	Jan20-25,2020	120
Online Hackathon on Innovations to Defeat Pandemic COVID 19	April 23-30,2020	
Finance Awareness Talk	February 2,2020	60
Promoting Entrepreneurship in Campus Talk	Februaru 2,2020	60
Industry Awareness Program	September 29, 2018	240
Workshop on MATLAB	October 03-04, 2018	35
Workshop on AutoCAD	August 19-23, 2019	
Workshop on JAVA	August 26-30, 2019	
Workshop on Embedded System	August 26-30, 2019	
Workshop on PLC & SCADA	September 16-20, 2019	
Workshop on Solid Works	September 16-20, 2019	
Workshop on Web Design	September 23-27, 2019	
Workshop on STAAD. Pro	September 23-27, 2019	

7. Number of students qualified in placements

Name of company	Number of students
OKAYA INFOCOM	02
GRIFEO TECHNOLOGY	05

8. Achievements of students

Sl.No.	Name of student	Achievement
1.	Swati Suman(19-EE-11)	<ul style="list-style-type: none"> ➤ 1st place in online hackathon organized by Innovation Club and DCE ➤ 3rd place in Speech competition organized by college on “Matribhasha Divas” .

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING [EEE]

2.	Rani Kumari(19-EE-37)	➤ 3 rd place in essay competition organized on “Matribhasha Divas”
3.	Prem Prakash(19-EE-21) Jay Hind Kumar(19-EE-40)	➤ 3 rd place in painting competition organized by NSS in DCE.
4.	Keshav Kumar	➤ Secured 1st rank among 500 entries in IoT training organised by EICT Academy, IIT Kanpur. Awarded by Dr. Amay Karkare (Co-Chief Investigator, EICT-IITK)
5.	Leepi Das	➤ Secured Elite Certificate in Power System Analysis on NPTEL Online Certification

Many students are involved in NSS as volunteers.

Many initialized working on projects started getting enrolled in various Courses on NPTEL, Internshala, Coursera.

Students have also participated in other online Hackathons on COVID-19 such as NASSCOM hackathon and other competitions such as Essay and poetry competition organized by Hindi Mitra Mandal (IIT, Madras), results of which is yet to come.



Lab activities (EEE)

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING [CSE]

In the last year, our department made many important technological developments with the help of many small steps. We and you can underline this technological advancement as an improvement in the functioning of students, staff, teachers, department, cooperation with other departments, and outstanding performance by the students of our department at the state, country, and international levels, even in times of this corona crisis. Even in this period of Corona crisis, we have completed all our courses. We are going to implement many new programs in an effort to minimize the educational atmosphere of our students to the Corona crisis. All this is not possible without the cooperation of our Principal, teachers of all departments, especially the teachers, students and staff of our department.



Mr. Ajeet Kumar Gupta
Head of Department

Thank you wholeheartedly.



Faculty of Department of CSE

Program	Strength		
	Boys	Girls	Total
1 st year CSE	52	13	65
2 nd year CSE	26	16	42
3 rd year CSE	46	21	67
4 th year CSE	39	23	62

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING [CSE]

1. Major achievements of department

- a) No. of students trained for GATE :- 49, (4th-yr (2016-20))
- b) No. of students qualifying GATE: 06
- c) Department signed MoU with 1 industry in order to enhance Training, Placement and Internship.
- d) No. of students trained under Basic English Training :- 57
- e) No. of Conference Paper published by faculty with the best Conference Paper award :- 01
- f) No. of students trained under Employability Skills Training :- 45, [3rd yr (2017-21)]

2. AMCAT Test Performance :

Batch Year-wise	Average Score
4 th year (2016-20)	315.6
3 rd year (2017-21)	365.7
2 nd year (2018-22)	375.7

3. Details of software and laptop procured:

Number of Laptop -	08
Number of computer -	40
Number of software purchased -	01
Software	Oracle

4. Workshops and FDPs attended by faculty

Sl.No.	Name of faculty	Name of workshop and Place	Date of workshop
1.	Mr. Ajeet Kumar Gupta	Induction Training - Phase I, BCE Bhagalpur	18-11-2019 to 22-11-2019
		ATAL Program on Artificial Intelligence, NIT Patna	02-12-2019 to 06-12-2019
		How to conduct experiments, MIT Muzaffarpur	17-12-2019 to 19-12-2019
		Induction Training - Phase I, NITTTR KOLKATA	13-01-2020 to 24-01-2020

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING [CSE]

Sl.No.	Name of faculty	Name of workshop and Place	Date of workshop
2.	Mr. Sunil Kumar Sahu	Training Program on Advanced Pedagogy & Digital Tool, IIT Kharagpur	01-07-2019 to 05-07-2019
		Machine Learning and Image Processing, IIT Patna	22-07-2019 to 26-07-2019
		Professional Development Training Programme, IIM Trichy	23-09-2019 to 27-09-2019
		Artificial Intelligence: Devices to Circuits, IIT Roorkee	09-01-2020 to 13-01-2020
3.	Mr. Akhilesh Kumar	Induction Training - Phase I, BCE Bhagalpur	18-11-2019 to 22-11-2019
		ATAL Program on Artificial Intelligence, NIT Patna	02-12-2019 to 06-12-2019
		How to conduct experiments, MIT Muzaffarpur	17-12-2019 to 19-12-2019
		Induction Training - Phase I, NITTTR Kolkata	13-01-2020 to 24-01-2020
		ToT on CCNA Module 3, AKU Patna	03-03-2020 to 07-03-2020
4.	Mr. Dharendra Kumar	Hands on Training on Lab Experiments, IIT Patna	13-06-2019 to 14-06-2019
		Training Program on Advanced Pedagogy & Digital Tool, IIT Kharagpur	01-07-2019 to 05-07-2019
		ATAL Program on Artificial Intelligence, NIT Patna	02-12-2019 to 06-12-2019
		How to conduct experiments, MIT Muzaffarpur	17-12-2019 to 19-12-2019
5.	Mr. Anand Kamal	Training Program on Advanced Pedagogy & Digital Tool, IIT Kharagpur	01-07-2019 to 05-07-2019
		Workshop on Preparation for NBA Accreditation, Hotel Panache Patna	15-07-2019

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING [CSE]

Sl.No.	Name of faculty	Name of workshop and Place	Date of workshop
6.	Mr. Zoheb Hasan	Training Program on Advanced Pedagogy & Digital Tools, IIT Kharagpur	01-07-2019 to 05-07-2019
		Machine Learning and Image Processing, IIT Patna	22-07-2019 to 26-07-2019
		Workshop on IoT, IIIT Delhi	17-12-2019 to 21-12-2019
7.	Ms. Punam Prabha	Hands on Training on Lab Experiments, IIT Patna	13-06-2019 to 14-06-2019
		FDP on “Machine Learning & Image Processing”, IIT Patna	22-07-2019 to 26-07-2019
		Workshop on "Train the Trainer workshop for Communication English for employability"	14-10-2019 to 17-10-2019
		FDP on “Blockchain Technology”, IIT Hyderabad	16-12-2019 to 20-12-2019
		FDP on “Artificial Intelligence : Devices to Circuits”, IIT Roorkee	09-01-2020 to 13-01-2020

5. Workshops and Internship Programs Attended by Students

Name of workshop and Place	Number of students	Date of workshop
Hands on Training on Lab Experiments, IIT Patna	05	13-06-2019 to 14-06-2019
JAVA, DCE Darbhanga	36	26-08-2019 to 30-08-2019
Web Design, DCE Darbhanga	55	23-09-2019 to 27/9/2019

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING [CSE]

6. Workshops and Internship Programs Conducted in College

Name of workshop	Date of workshop	Number of participants
JAVA	26-08-2019 to 30-08-2019	36
Soft skills	02-09-2019 to 07-09-2019	All Branch
Web Design	23-09-2019 to 27-09-2019	55
Professional Skill/ Interview Skill Training	11-11-2019 to 20-11-2019	All Branch

7. Number of students qualified in placements : 07

Sl.No.	Name of the Student	Name of Company	Type of Company	Job role	Salary Package in Lakhs p.a.
1.	Ankit Kumar	Grifeo Technology	Software	Project/Assistant Engineer	4.8
2.	Raj Kumar Yadav	Grifeo Technology	Software	Project/Assistant Engineer	4.8
3.	Kanhaiya Kumar	Grifeo Technology	Software	Project/Assistant Engineer	4.8
4.	Sarika Raj	Grifeo Technology	Software	Project/Assistant Engineer	4.8
5.	Shweta	Grifeo Technology	Software	Project/Assistant Engineer	4.8
6.	Vikash Anand	Grifeo Technology	Software	Project/Assistant Engineer	4.8
7.	Nidhi Kumari	DCE Darbhanga	Academic	Library Technician	1.8

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING [CSE]

Name of student	Achievement
Muskan Gupta 2 nd Year Student	<ol style="list-style-type: none"> 1. August(2019) - Selection for Startup Bihar Pre-Incubation program under startup Bihar policy 2017. 2. September(2019) – Built Light fidelity project based upon Internet of things controlled by Raspberry pi in Internal Hackathon organized by Startup cell of DCE, Darbhanga. 3. March(2020) – Selected for the Grand Finale of World’s biggest open innovation model Hackathon , Smart India Hackathon as a Team Lead in a team of six member and Mr. Akhil Mohammed (Asst. Prof, EEE) as Single point of contact (SPoC) mentor from college organized by MHRD for proposing solution for building a student’s grievance support system for Government of Andhra Pradesh on which we are working. 4. April (2020) - Won MIT Covid-19 Virtual Hackathon for building innovative High Fidelity Design prototype for combating misinformation in a virtual team of six members from five countries across the globe. 5. Launched my Startup with a website as a platform to remove unemployment and make people capable of job creations with a team of six members and we have got 1400 users so far.
Name of Faculty	Achievement
Ms. Punam Prabha	<p>Best Conference paper award</p> <p>Name of Conference : International Conference On Power Energy, Environment, And Intelligent Control (PEEIC), Greater Noida, India</p> <p>Name of Paper: Conditional Contrast High Itemset Mining for Two Dataset in Two Time Slot</p> <p>http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8976827&isnumber=8976447</p>

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING [CSE]

8. Lab Training for Lab Assistant :-

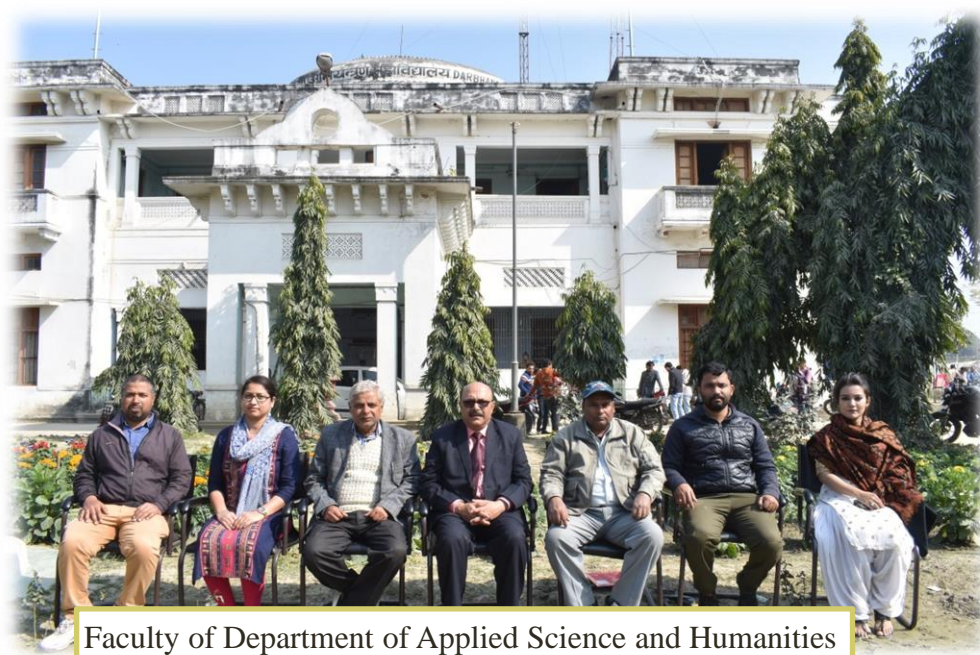
Name of Lab, Place	No. of days of training	No. of hours of training	No of personnel trained
How to conduct experiments?	3	24	2
MIT Muzaffarpur	17-12-2019 to 19-12-2019		



Lab activities (CSE)

DEPARTMENT OF APPLIED SCIENCES AND HUMANITIES

Apart from the Engineering departments, DCE, Darbhanga has separate supporting departments which are Physics, Chemistry, Mathematics and English. There is a separate lab for all science departments in the institute and this constitute of well qualified teachers and well equipped laboratories for Physics and Chemistry. The English Language Lab is awaited to be functional in the new building premises.



Lab Instruments purchased in 2019-2020 Physics

	Name of equipment	Quantity
1	Gyroscope	2
2	Bar pendulum	3
3	Reading Telescope	5
4	Flywheel	2
5	Bracket with 4 holes	2
6	Measuring tape	2
7	Vernier Caliper	4
8	Stopwatch	9
9	Meter Scale	3

DEPARTMENT OF APPLIED SCIENCE AND HUMANITIES

10	Moment of Inertia Set-up	2
11	LC and LCR Circuit kit	2
12	Helmhotz Coil Set-up (MFM - 01), Coil diameter 200mm, 1000 turn	2
13	Digital Gaussmeter, Range 0 - 200G, Resolution 0.1G	2
14	Constant Current Power Supply	2
15	Dielectric Constant Measurement Set-up (DSL-01), Range 0pF - 50 mF, Resolution 0.01 pf	2
16	Carbon Tetrachloride Liquid	2
17	Lead Titanate (PZT)	2
18	Bakelite	2
19	Hydrogen discharge tube	2
20	Spectrometer 7" S.S. scale	2
21	EHT generator	2
22	Imported grating	2
23	Frank Hertz Set up (Model FH-3001)	2
24	9-pin Argon filled glass tetrode of 22mm dia	2
25	He Ne Laser Source, 0.5 mW - 5 mW, 632.8 nm	4
26	Diffraction grating	4
27	Optical Bench	4
28	Power Supply, 240/50 Hz	4
29	Optical Bench (1.5 m)	4
30	Reflection Grating (15000 lines per inch)	4
31	Transmission Grating (15000 lines per inch)	4
34	Screen (12" x 12")	4
35	clamp type holder	4
36	Spectrometer, 7" dia circle reading 30 seconds	2
37	Mercury light source	2
38	Diffraction grating	2
39	Prism	2
40	Lycopodim powder	2
41	Digital Oscilloscope	2
42	Forced Oscillator set up	2

DEPARTMENT OF APPLIED SCIENCE AND HUMANITIES

Chemistry

Sl.No	Name of the Instruments	Specification	Quantity
1	Digital Magnetic Stirrer with heating	Magnetic stirrer with ceramic heat plate Temp. range maximum 300oC and speed ranging from 50-1500 rpm	01
2	UV-lamp	254 nm	02
3	Gas Cylinder	Purified Argon and Nitrogen	01 each
4	Digital Balance	Maximum 300 gm and minimum 0.001 gm	01
5	Small Tullu Pump		01
6	Laptop	Latest configuration	03
7	Printer with scanner	LaserJet	01
8	Fume hood	Standard	01

Workshops conducted by Department of English

Sl. No	Name of Workshops	Beneficiaries	Date
1	Workshop on Soft-Skills Development	5 th and 6 th Semester students	05.04.2018-06.04.2018
2	Workshop on SoftSkills by Concord Consulting Services, Bengaluru	3 rd Semester students	02.09.2019 - 07.09.2019
3	Workshop on Interview Skills by Concord Consulting Services, Bengaluru	5 th and 6 th Semester students	11.11.2019 - 20.11.2019
4	Basic English Training by Cambridge English, Patna	1 st and 2 nd Semester students	17.02.2020 - 22.02.2020

DEPARTMENT OF APPLIED SCIENCE AND HUMANITIES

Workshops and FDPs attended by faculty

Name of faculty	Name of workshop and Place	Date of workshop
Dr. Puja Kumari	Radiation and Applications (A Confluence of Material Science and Accelerators), Department of Physics, IIT Hyderabad	17-22 February, 2019
	Research Proposal Writing, SPIU, Patna	24-26 April, 2019
	Pedagogy Workshop on Effective Teaching, Computer Science and Engineering Department, IIT Guwahati	2-7 June, 2019
	Advanced Pedagogy & Digital Tool, IIT Kharagpur	1-5 July, 2019
Dr. Rajesh	FDP - Advanced Pedagogy and Digital Tool for TEQIP faculty members, IIT Kharagpur	01- 05 July, 2019
Dr. Abhishek Kumar Singh	FDP - Advanced Pedagogy and Digital Tool for TEQIP faculty members, IIT Kharagpur	01- 05 July, 2019
	Paper Presentation - advanced materials and nanotechnology (AMN-2020) at IIIT, Noida, International Conference on Recent Trends in Electrical, Electronics and Computer Science Engineering at Uma Nath Singh Institute of Engineering & Technology, Jaunpur, India	20 February, 2020
Dr. Geevarghese V Jacob	Paper Presentation - advanced materials and nanotechnology (AMN-2020) at IIIT, Noida,	20 February, 2020
Dr. Ratnakshi Roy	Workshop – Evidence Based Strategies on Higher Education, ISSER, Bhopal	13-15, July 2020
	Professional Development Training – IIMV	09-13 December 2019
	Business English Communication, Cambridge English	23 November 2019
	Trainer the Trainer, Cambridge English Teacher Knowledge Test, Cambridge English	October 2019
		05-09 February 2019

DEPARTMENT OF APPLIED SCIENCE AND HUMANITIES

Sponsored Project

1. Project Title: “Persistent Lighting Emitting Phosphors for Solid State Lighting Applications”. Principal Investigator: **Dr. Puja Kumari**, Co-PI: Dr. A. K. Choudhary, Dr. Ajay D. Thakur, Dr. Deepak K. S. Ambast. Sponsoring agency: NPIU, MHRD. Status: On-going **Sanctioned Amount: 10.98 lakhs.**
2. Project Title: “Engineering the Tunable Au-Bi₂Se₃-Au Metamaterial Perfect Absorber (MMPA)” Principal Investigator: Dr. Deepak K. S. Ambast Co-PIs: Dr. Sayed Jamil Ahmad, Dr. Manpuran Mahto, **Dr. Puja Kumari**. Sponsoring Agency: NPIU, Status: On-going **Sanctioned Amount: 5.36 lakhs.**
3. Project Title: “Investigation on electron migration mechanism in metallic nanowire” Principal Investigator: **Dr. Abhishek Kumar Singh** , Co PI Sponsoring agency: NPIU, MHRD. Status: On-going **Sanctioned Amount:12.25 lakhs**
4. Project Title: “Catalytic Synthesis of Primary Alcohols, the Addition of water to alkenes by Ruthenium Princer complex”
Principal Investigator: **Dr. Rajesh Jena**, Co PI - Mr. Makkhan Mishra, Mr. Neeladri Das, Dr. Geevarghese Jacob, Co PI Sponsoring agency: NPIU, MHRD. Status: On-going **Sanctioned Amount:12.10 lakhs**

Publication in Journal

1. **Dr. Puja Kumari** - Journal of Alloys and Compounds (ISSN: 09258388) 802 (2019) 723-732 (I. F.- 4.101).”
2. **Dr. Puja Kumari** - AIP Conference Proceeding 2220, (2020) 050011-1 -050011-6. (ISSN-15517616)
3. **Dr. Abhishek Kumar Singh** Nucl. Instrument. Meth. B 425 (2018) 25-31.
4. **Dr. Abhishek Kumar Singh** Materials Today: Proceedings
DOI: <https://doi.org/10.1016/j.matpr.2020.01.439>

INDUCTION PROGRAM

The Induction Program is the a mandatory programin DCE, Darbhanga to introduce fresh batch of students to this institute and vice versa and train the students for their work assignment. Induction Program is an important and critical process for the effective integration of new students into this DCE Family.

Coordinators – Prof. A. K. Choudhary and Prof. S. S. Choudhary

Invited lectures

1. Dr. Pushpam Narayan, Professor, Music, LNMU was invited for the music classes for 12 days, **(06-09-2019 to 26-09-2019)**
2. Mr. Gopal Singh, Yoga Instructor were invited for yoga classes for 12 days **(06-09-2019 to 26-09-2019)**
3. Prof. Shashank Shekhar, Soft skills, Asst. Professor, BCE Bhagalpur **(15-09- 2019 to16-09-2019)**
4. Mr. Nikhil Gaurav , Director of Shekhar Classes, Soft Skill Development, **(18-09-2019, 21-09-2019)**
3. Dr. Rashmi Kumari, Personal development, Asst. Professor, WIT, Darbhanga, **(17-09-2019)**
5. Mr. R. R. Prabhakar, Professional Management, Darbhanga Collectorate, Darbhanga, **(18-09-2019)**
6. Mr. Shashi Kant, and Shiwesh Kumar Singh, Professional Trainer, Art of Livin, **(23-09-2019 to 28-09-2019)**
7. Dr. Imtiyaz Ansari, Applied Science, Retired Professor, Darbhanga College of Engineering, **(06-09-2019 to 07-09-2019)**



Activities by Induction Problem

TRAINING AND PLACEMENT CELL [T&P CELL]

The Training and Placement Cell of DCE, Darbhanga, is exploring all possible avenues round the clock to train the students on a diverse range of activities – workshops, trainings, and hands-on experiential learning on all of these as well as soft-skills and personality development so that the students become practical and skilful engineers ready to conquer the workplace. Every student goes on mandatory internship program. We have been ensuring that students of DCE Darbhanga get the best possible exposure in their fields and the result is in the increasing placement record that we have been witnessing.



Activities by T&P Cell

- Faculty members working in Training & Placement (T & P) cell have provided 09 training to students of all the semester belonging to all the four disciplines of engineering. They trained the students in various software skills such as C / C++, Auto Cad, Java Programming, Embedded Systems, Solid Works, PLC SCADA, STAAD Pro, Web Design, etc. and in addition to that, on communication and personality development skills also. These trainings have been provided by the experts from the industries too on the campus.
- **19 students** are placed in many national companies with an average package of **4.27 lakhs** per annum.

TRAINING AND PLACEMENT CELL [T&P CELL]

- Students also got benefited with three short-term certification courses on various topics from NITTTR Chandigarh through ICT mode in the limited infrastructural support.
- Students from 1st 2nd 3rd and 4th years have been sent to many IITs and NITs for workshop under their mentorship and performed exceedingly well there.
- Students are sent for the Internships and summer/ winter, vocational training programmes to prestigious organisations like DRDO, BSNL, etc.
- T & P Cell has started consulting many IITs and NITs for student exchange programmes, joint activities like attending tech fest, workshops for growth and all-round development of the students.

TPO	Mr. Vishnu Singh
Asst. TPO	Dr. Ratnakshi Roy
Branch co-ordinator (EEE)	Ms. Sweta Kumari
Branch co-ordinator (CSE)	Mr. Sunil Kumar Sahu
Branch co-ordinator (ME)	Mr. Rajat Gupta
Branch co-ordinator (CE)	Mr. Ravi Ranjan Kumar

1. GATE Coaching

Name of Training Agency engaged - THE GATE COACH

28, Jia Sarai, Near IIT, Hauz Khas, New Delhi-16

Branch	Total final year students	Students trained	Amount Charged/ Student	Date of Start of Training	Date of End of Training	No. Of hours of training	Date of Mock Test	No. of students qualified
CE	69	50	25,300	24-08-2019	12-01-2020	420	25-12-2019	11
ME	70	58	25,300	24-08-2019	12-01-2020	390	25-12-2019	5
EEE	67	49	25,300	24-08-2019	12-01-2020	400	25-12-2019	2
CSE	63	49	25,300	24-08-2019	12-01-2020	325	25-12-2019	6
TOTAL	269	206	52,11,800					24

TRAINING AND PLACEMENT CELL [T&P CELL]

2. Employability Skills Training

Name of Training agency engaged - Ethnus Consultancy Services Pvt. Ltd., SST Chambers, No.151/17/1, 36th Cross Rd, 5th Block, Jayanagar, Bengaluru.

Total No. of third year students	No. of Students getting trained	Amount Charged/ Student	Date of Start of Training	Date of End of Training	Average Marks obtained by the students
201	206	Rs. 5428	19 th Aug. 2019	5 th March 2020	27.3/60

3. AMCAT Employability Skill Test 2019/2020

Sl.No.	Type of Company /Batch	AMCAT 2019-20				AMCAT 2018-19			
		(Percentage of students eligible)				(Percentage of students eligible)			
		2016-20	2017-21	2018-22	2015-19	2016-20	2017-21	2018-22	
1	IT Services	8.1%	8%	10%	16.5%	12%	13.6%	16%	
2	ITeS and BPO	40.7%	38.5%	40.8%	43.1%	49.6%	40.3%	40.3%	
3	Hardware & Networking	37.2%	32.8%	33.3%	43.1%	48.1%	39.3%	40.3%	
4	KPO/Analyst	2.3%	4%	5%	4.6%	3%	4.2%	3.9%	

Major Steps taken by college

- Conducted different software related trainings for 3rd and 2nd year students of all the branches. (Solidworks, AutoCAD, Matlab, PLC scada, Web Designing)
- Conducted trainings on Communication Skills for 3rd year and 2nd year students.
- Conducted English Language training by Cambridge English, Bihar, for 1st year students.
- Conducted a 200 hrs. Employability Skill Training for 3rd year students.
- Organized IoT based workshop on Robotics and drone development.
- Organized expert lectures on different topics on professional skills, interview skills.

TRAINING AND PLACEMENT CELL [T&P CELL]

4. SWAYAM COURSE

Sl.No	Branch	No. of students who took SWAYAM/ MOOCs	Name of the Platform	No. of students who received SWAYAM Certification
1	CE	80	SWAYAM	1
2	ME	70	SWAYAM	2
3	EEE	95	SWAYAM	21
4	CSE	25	SWAYAM	11
	TOTAL	270		35
		No. of Faculty	No. of Faculty trained through ARPIT	No. of Faculty trained through SWAYAM
1	CE	09	03	06
2	ME	10	-	02
3	EEE	12	01	05
4	CSE	07	01	04

5. PLACEMENT ACTIVITIES

Sl.No.	Name of the Industry	Contact details of concerned Industry person	Duration of MoU	Major activities to be done with the industry
1	Polytropic Services Pvt. Ltd., IT Startup Hub, Dept. of IT, Govt. of Bihar	Avinash Kumar polytropicservices@gmail.com 9431051799,	2 years	<ul style="list-style-type: none"> Industrial visits Internship. Placement. Institute-industry interaction etc.
2	IdeaLabs Future Tech Ventures, Hyderabad	Saba Perween saba@idealabsftv.in 9848448538	Until terminated	<ul style="list-style-type: none"> Industry visits. Consulting partner. Internships and Placements. Organizing Bootcamp and Hackathon

TRAINING AND PLACEMENT CELL [T&P CELL]

3	Ambition Technologies, New Delhi	Pranay Jaiswal (9810400671) Rahul Sharma, Technical Director (9911223020)	2 years	<ul style="list-style-type: none"> • Research Activities. • Training support for Students. • Software trainings.
4	Nwing Aviation, New Delhi	Nitesh Raj 8287437793	2 years	<ul style="list-style-type: none"> • Organizing conferences, workshops, etc. jointly. • Training/Workshop for students. • Joint guidance of Students Projects.
5	InfoHiway, Darbhanga	Ranvir Choudhary, 9334911299	2 years	<ul style="list-style-type: none"> • Training support for Students.
6	Dellsoft Technologies Pvt. Ltd., New Delhi	Mr. Sandeep Bhatnagar (9810266404)	2 years	<ul style="list-style-type: none"> • Research and Development Activities. • Software trainings • Manufacturing of PCB Machine and inspection Equipment.
7	Simulation India, New Delhi	Mr. Kuldeep Kaul (9810137771)	2 years	<ul style="list-style-type: none"> • Research and Development in fields like Embedded Technologies, Biomedical Engg., Instrumentation labs etc. • Software training for students

6. Campus Placement

Name of Company	Number of students	Branch
Wioska Molding Pvt Ltd	02	ME
Grifeo Technology	03	ME
Okaya Infocom	01	CE
Okaya Infocom	2	EEE
Grifeo Technology	5	EEE
Grifeo Technology	6	CSE

TRAINING AND PLACEMENT CELL [T&P CELL]

6. List of Workshops and Trainings

Computer Science and Engineering								
Sl. No	Training / Workshop	Company/ Institute	Starting Date	Ending Date	No. of Days	No. of Participant	Certificate Issue	Semester
1	Hands-on-Training	IIT Patna	13/06/2019	14/06/2019	2	7	NO	ALL
2	Java	Pie-InfoComm	26/08/2019	30/08/2019	5	36	YES	3 rd
3	Web Designing	Sofconn India Pvt. Ltd.	23/09/2019	27/09/2019	5	45	YES	5 th
4	TechGaya n	IIT Patna	19/10/2019	20/10/2019	2	113	YES	ALL
5	Student Interaction Programme	IIT Patna	18/07/2019	18/07/2019	1	196	No	ALL
6	Soft Skills	Concord Consulting Services, Bangaluru	02/09/2019	07/09/2019	6	110 (all branch)	YES	3 rd
7	Soft Skills	Concord Consulting Services, Bangaluru	16/11/2019	20/11/2019	5	89 (all branch)	YES	5 th

TRAINING AND PLACEMENT CELL [T&P CELL]

Mechanical Engineering								
Sl. No	Training/ Workshop	Company/ Institute	Starting Date	Ending Date	No. of Days	No. of Participants	Certificate Issued	Semester
1	Hands-on-Training	IIT Patna	13/06/2019	14/06/2019	2	7	No	All
2	AutoCAD	Pie-InfoComm	19/08/2019	23/08/2019	5	31	Yes	3 rd
3	Solid Works	Sofconn India Pvt. Ltd.	16/09/2019	20/09/2019	5	47	Yes	5 th
4	TechGayan	IIT Patna	19/10/2019	20/10/2019	2	113	Yes	All
5	Student Interaction Programme	IIT Patna	18/07/2019	18/07/2019	1	60	No	All
6	Soft Skills	Concord Consulting Services, Bangaluru	02/09/2019	07/09/2019	6	---	Yes	3 rd
7	Soft Skills	Concord Consulting Services, Bangaluru	11/11/2019	15/11/2019	5	89 (all branches)	Yes	5 th
Electrical & Electronics Engineering								
1	Hands-on-Training	IIT Patna	13/06/2019	14/06/2019	2	7	No	All
2	Embadded System	Pie-InfoComm	26/08/2019	30/08/2019	5	30	Yes	3 rd

TRAINING AND PLACEMENT CELL [T&P CELL]

3	PLC SCADA	Sofconn India Pvt. Ltd.	16/09/2019	20/09/2019	5	39	YES	5TH
4	TechGayan	IIT Patna	19/10/2019	20/10/2019	2	113	YES	ALL
5	Student Interaction Programme	IIT Patna	18/07/2019	18/07/2019	1	60	No	ALL
6	Soft Skills	Concord Consulting Services, Bengaluru	02/09/2019	07/09/2019	6	110	YES	3RD
7	Soft Skills	Concord Consulting Services, Bengaluru	16/11/2019	20/11/2019	5	89	YES	5th

Civil Engineering

Sl. No	Training/Workshop	Company/Institute Name	Starting Date	Ending Date	No. of Days	No. of Participants	Certificate Issue	Semester
1	Hands-on-Training	IIT Patna	12/06/2019	13/06/2019	2	7	NO	ALL
2	AutoCAD	Pie-InfoComm	19/08/2019	23/08/2019	5	36	YES	3RD
3	Staad Pro	Pie-InfoComm	23/09/2019	27/09/2019	5	42	NO	5th
4	Soft Skills	Concord Consultancy Services, Bengaluru	02/09/2019	07/09/2019	6	110 (all branch)	YES	3RD
5	Soft Skills	Concord Consultancy Services, Bengaluru	11/11/2019	15/11/2019	5	89 (all branch)	YES	5th

T&P CELL - INTERNSHIP PROGRAM

This Program is extremely helpful for engineering students to see himself / herself ahead in the competitive world. Students had hands on practical exposure to develop their skills which is directly related to their career goal. The program helps to get easy entry to the student's dream organizations. It builds the confidence of students while entering to the corporates.

Sl.No	Branch	No. of students in			No. of students who successfully completed the internships			Mode of internship
		2 nd Sem	4 th Sem	6 th Sem	2 nd Sem	4 th Sem	6 th Sem	
1	Mechanical Engineering	49	69	70	49	47	70	In college/ 6 th semester (industrial training)
2	Civil Engineering	58	72	69	58	45	69	In college/ 6 th semester (industrial training)
3	Electrical Engineering	51	74	67	51	39	67	In college/ 6 th semester (industrial training)
4	Computer Science and Engineering	49	68	62	49	55	62	In college/ 6 th semester (industrial training)

RESEARCH AND DEVELOPMENT

The college is in its existence since November 2008, but since the inception of the DCE, this is glaring to note that first time the Research Projects have been brought by the TEQIP faculty members and at present, the college has a total research grant of Rs. 97.33 lakhs for the research and development related activities. These grants are being brought by nine Principal Investigators (PIs) with the collaboration of the faculty of different NITs and IITs. This cell is dedicated to developing an environment of research work. The Collaborative Research Scheme (CRS) projects are being supervised. The developments in the research work of thirteen TEQIP faculty members who are pursuing PhD from NIT, Patna are being monitored. Organising Hackathon and make students participation in Smart India Hackathon are other additional works which are being done.

Co-ordinator	Dr. Puja Kumari
Member	Mr. Shakti Prasad Senapati

1. Status of Collaborative Research Scheme

Sl. No.	Name of Principal Investigator (PI)	Grants received from AICTE/NPIU in Lakhs			
		Non-recurring	Recurring (travel, contingency, consumable, miscellaneous)	Total (in lakhs)	Procurement Completed for amount (in Lakhs)
1	Mr. Amit Kumar	13.78	3.13	16.92	8.36
Title of research : Investigations on massive MIMO antenna for future wireless communication					
Research outcome: Two Research Articles communicated in Radio Science (SCI Journal) and are under review since 11-05-2020					
2	Dr. Rajesh Jena	8.35	3.9	12.25	3.62
Title of research : Catalytic Synthesis of Primary Alcohols, the Addition of Water to Alkenes by Ruthenium Pincer Complexes					
Research outcome: On-going					

RESEARCH AND DEVELOPMENT

3	Mr. Navdeep Pandey	9.45	3.9	13.35	3.62
Title of research : Development of a portable and industry viable torsional vibration measurement system					
4	Dr Ravi Ranjan	7.28	4.01	11.30	3.40
Title of research : Group-IV alloys based nanostructured photonic sensors for near and mid-infrared applications					
Research outcome: Ongoing					
5	Dr. Abhishek K. Singh	8.66	3.45	12.10	0
Title of research : Investigation on electron migration mechanism in metallic nanowire					
Research outcome: Ongoing					
6	Mr. Rajat Gupta	1.20	2.40	14.43	0
Title of research : Design and development of set up for Electrical discharge milling process					
Research outcome: Ongoing					
7	Dr. Puja Kumari	6.86	4.11	10.98	1.97
Title of research : Persistent Light Emitting Phosphors for Solid State Lighting Applications					
Research outcome: Presented paper in International conference					

2. Student Project Program

Sl. No.	Name of the Team Leader	Branch	Project Title	Name of the Guide	Sanctioned Amount (In Rupees)
1.	Mr. Sudhir Kumar	CE	Stabilization of Soil in Darbhanga District using Polypropylene Fiber	Mr. Ahsan Rabbani	9000
2.	Mr. Jai Kumar	CE	Bamboo as a reinforcement material in construction	Mr. Ahsan Rabbani	9500
3.	Mr. Shikha	CE	Environmentally sound options for e-waste management and its utilization in concrete making	Mr. Ahsan Rabbani	9000

RESEARCH AND DEVELOPMENT

4.	Mr. Kanhaiya Kumar Yadav	CE	Analysis of blackspots on road network	Mr. Loknath Kumar	10000
5.	Mr. Umang Bhardwaj	CE	Utilisation of polyethylene Terephthalate (PET) waste in bituminous mixes.	Mr. Ahsan Rabbani	9500
6.	Mr. Amit Raj	CE	Analysis of water quality parameters of various source of Darbhanga district	Mr. Jitendra Kumar	10000
7.	Mr. Kumar Suman Saurabh	CE	Micro level investigation of soils in Bihar and its stabilization with RHA, RSA, CDA and fly ash for the construction of low volume road	Mr. Ahsan Rabbani	9000
8.	Pankaj Kumar Sah	CE	Utilization of plastic waste in road pavement	Mr. Akash	10000
9.	Bibek Karn	ME	Mechanically powered hacksaw	Mr. Mukesh Kumar	10000

3. Papers published by faculty by Institute affiliation

Name of faculty	Title of paper	Name of journal/Publisher	Journal indexing details
Dr. Amit Kumar	An Ultra-Compact Two-Port UWB-MIMO Antenna with Dual Band-Notched Characteristics	AEU - International Journal of Electronics and Communications	SCI
Dr. Amit Kumar	High Isolation Compact Four-Port MIMO Antenna Loaded with CSRR for Multiband Applications	Frequenz	SCI

RESEARCH AND DEVELOPMENT

Dr. Amit Kumar	A Novel ITI-Shaped Isolation Structure Placed Between Two-Port CPW-Fed Dual-Band MIMO Antenna for High Isolation	AEU - International Journal of Electronics and Communications	SCI
Dr. Amit Kumar	Dual Circular Polarization With Reduced Mutual Coupling Among Two Orthogonally Placed Cpw-Fed Microstrip Antennas For Broadband Applications	Wireless Pers Commun	SCI
Dr. Amit Kumar	A compact modified sierpinski carpet fractal UWB MIMO antenna with square-shaped funnel-like ground stub	AEU - International Journal of Electronics and Communications	SCI
Dr. Ravi Ranjan	Numerical Analysis of an tin incorporated group-IV alloy based MQWIP	Optical and Quantum Electronics	SCI
Dr. Ravi Ranjan	Modeling and design of tin doped group IV alloy based QWEAM	Optical and Quantum Electronics	SCI
Dr. Md Asjad Mokhtar	Investigations of Rubbing Phenomenon During Coast-Up Operation of a Cryogenic Engine Turbopump	Journal of Vibration Engineering & Technologies	SCI
Dr. Puja Kumari	Structural and optoelectronic properties of palmierite structured $Ba_2Y_{0.67}□_{0.33}V_2O_8:Eu^{3+}$ red phosphors for n-UV and blue diode based warm white light systems	Journal of Alloys and Compounds	SCI
Dr. Amit Kumar	Design of Triple-Band MIMO Antenna with One Band-Notched Characteristic	Progress In Electromagnetics Research C	Scopus
Dr. Amit Kumar	On the FIB Fabrication of Nano-Gap Metal Electrodes and Nature of their I-V characteristics	Test Engineering and Management	Scopus
Dr. Amit Kumar	Reliability Analysis of a newly proposed two disjoint path multistage interconnection networks	Test Engineering and Management	Scopus

RESEARCH AND DEVELOPMENT

Dr. Ravi Ranjan	Small signal analysis of tin-incorporated group-IV alloys based multiple quantum well Transistor Laser	NUSOD 18	Web of Science
Dr. Ravi Ranjan	Performance comparison of tin-based group IV SQWIP and MQWIP in dark conditions	Proc. SPIE	Web of Science
Dr. Ravi Ranjan	Investigation of GeSn/SiGeSn nanostructured layer for sensors in mid-infrared application	Proc. SPIE	Web of Science
Dr. Puja Kumari	Spectroscopic Behaviour of Lanthanide ions in near UV Excited Materials	American Institute of Physics Proceeding	Scopus
Ms. Sweta Kumari	Three-Phase space Vector Modulated Improved Z-Source Inverter	IEEE Explorer	Scopus
Dr. Puja Kumari	Down converted photoluminescence of trivalent rare-earth activated glasses for lighting applications	CRC Press (Taylor & Francis)	Scopus
Mr. Diwakar Verma	Self- Supplied Automatic Control of Street Light	IEEE Explorer	Scopus
Mrs. Punam Prabha	Conditional Contrast High Itemset Mining for Two Dataset in Two Time Slot	IEEE Explorer	Scopus
Mr. Akhil Mohammed KK	Trajectory Tracking and Stabilization Control of 4 DOF Ball Balancer	Second International Conference on Computing Communication and Energy Systems 2020 (ICCCES 2020)	Scopus
Prof. Achintya	Constraints and Strategic Solutions of Leakage in Chamera Hydroelectric Project (Stage-III)	New Building Materials and Construction World	Online available
Prof. Achintya	“ Necessity of Health Monitoring of Structures Constructed Before 2000 across India	New Building Materials and Construction World	Online available

RESEARCH AND DEVELOPMENT

- **S. Kumari**, R.K. Mandal, G.K. Chaudhory “Three-Phase space Vector Modulated Z-Source Inverter”, “MCCS-2019, LNEE, *Springer (Accepted)*).
- **S. Kumari**, R.K. Mandal, “Effectiveness of Space Vector PWM in Three-Phase Inverter” ICEFEET-2020, *IEEE Explorer, (Accepted)*).
- Surya Rai, Khushboo Kumari and **Diwakar Verma**, “Self- Supplied Automatic Control of Street Light”, IEEE International Conference, Publisher: **IEEE Explorer (Accepted)**. *

*For the first time students of DCE, Darbhanga have engaged in research work in collaboration with TEQIP faculty and one research paper was accepted for presentation in an International Conference.



Lab activities (CRS)

START-UP CELL

Faculty members have worked hard to establish this cell. They have engaged and motivate the students in developing entrepreneurship skills. Initially members of MSME and BEA (Bihar Entrepreneur Association) were called for motivational talks. In last two years, i.e. in academic session 2018-19 and 2019-20, National Level Hackathon were organized on the campus in which students provided solutions of some crucial problems by developing products. In this academic year, one group of students got selected in Smart India Hackathon. Students have developed the Innovation Club in which they are getting trainings from seniors and trying to innovate technology related solutions.

Co-ordinator	Mr. Akhil Mohammad K.K.
Member	Mr. Rajat Gupta
Member	Mr. Zoheb Hasan
Member	Mr. Jitendra Kumar
Member	Mr. Tabish Shanu

Event Name	Event Date	No. of Participants	Details	Expenditure (in Rs)
GET Test At DCE , Darbhanga	15/3/2018	100	General Measure for Enterprising test for students.	--
Youth Upliftment with Visionary Approach(YUVA) At DCE, Darbhanga	18/9/2018	80	Motivation talk by Resource persons from BEA(Bihar Entrepreneurship Association) Patna	25,000
Certified as MHRD Institution Innovation Council(IIC)	13/10/2018		This Cell was made including faculty members, students, technical expert from industry, and IIT Patna	--
Hackathon At DCE, Darbhanga	26/11/2018	45	Resource persons from IIT-P incubation center.	12000

START-UP CELL

Event Name	Event Date	No	Details	Expenditure (in Rs)
Pre-Incubation Program At IIT, Patna	19/08/2019	01	Muskan Gupta got selected through Bihar start up policy and actively participated.	
Code4Bihar, Hackathon 2019 At LNJPIT, Chhapra	26/08/2019	07	Students from DCE participated in the coding events	7000
Techno Ryan Zonal Competition of IIT, Bombay	28/09/2018	01	One student actively participated at University Of Engineering and Management (UEM), Newtown, Kolkata	9304
Workshop on 'Idea Generation and Entrepreneurship Development'. At DCE, Darbhanga	06/08/19	125	Resource persons from industries. Students actively participated in workshop, presented their ideas & got guidance from the experts.	50,000
Boot Camp on Emerging technologies(Internet of Things) At DCE, Darbhanga	12/09/2019	120	Jury panel from IIT-P and industries. Students from DCE ,other colleges from Bihar and other states actively participated in innovation product development and competition. Students built hardware models based on their startup ideas.	10,50,000
Hackathon on Emerging technologies(Internet of Things) at DCE, Darbhanga	14/09/2019	108	Student built hardware models on humanoids, drones and robotics.	5,16,191

START-UP CELL

Event Name	Event Date	No	Details	Expenditure (in Rs)
Workshop on Robotics and Drone Technologies	20/01/2020	120	3 teams registered and 1 team got selected for the finals	
Smart India Hackathon(SIH)-2020	Mar2020	12	Preparation for SIH 2020	
Webinar on Data analytics through Amazon Kinesis	29/01/2020	18	5 students shared their ideas at AKU Startup cell	--
Startup workshop	06/03/2020	5	Student built hardware models on humanoids, drones and robotics.	5,16,191
Promoting Entrepreneurships in the campus- Awareness talk	02/02/2020	60	Interactive sessions with Faculty and student members of E-club, IIT Patna	
Webinar on Building Engaging Voice experiences with Alexa	31/01/2020	18	Preparation for SIH 2020	--
Finance awareness talk in context of Entrepreneurships	12/02/2020	60	Interactive sessions with RBI representatives on bank's support on startups.	5000
Online Hackathon on 'Innovations to defeat the pandemic novel COVID19' http://innovationclub.online/	23 – 30/04/2020	19	A total of 19 teams registered for the event from colleges in Bihar. 12 teams were shortlisted for the event and they competed on providing innovative solutions for a set of problem statements in the context of COVID 19 crisis.	

START-UP CELL

Massachusetts Institute of Technology (MIT), Africa Takes on COVID-19- International Virtual Hackathon	01 – 03/05/2020	19	Muskan Gupta’s team was the winner. Team name MLP Rocket ○ Problem: African smartphone users between the ages of 39 and 65 need a way to verify information that they receive and share concerning the prevention, management, and statistics of the COVID-19 pandemic. ○ Solution: A platform that combats misinformation by checking the accuracy of information against trusted sources.
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Total number of Start-up - 10

Branch	Title of idea	Remarks/Progress
CSE	Grivotech	Smart India Hackathon (SIH 2020)Finalist. Finals on July 2020. Under prototype building
CSE	Accuro	Winner of International Hackathon organized by Massachusetts Institute of Technology (MIT) Covid-19 challenge. Competed and won for creating a solution for combating misinformation spread regarding COVID 19 –Africa Beat Pandemic. High fidelity design prototype has been built for this. Still Research and more ideation work going on.
EEE	DOYO Health	Second prize Winner of Online Hackathon on ‘Innovations to defeat the pandemic Novel COVID-19’ organized by DCE, Darbhanga. Prototype building on progress
EEE	QPORT	Winner of National Level ‘Bootcamp and Hackathon on Emerging Technologies’ conducted by DCE, Darbhanga. Prototype research going on
EEE	Jute Works	Online Supply Chain of Jute. Market Research is going on
EEE	Asthaaniy a Rojagaar Setu	Project in context of COVID19 Ideation and Research under progress

START-UP CELL

Branch	Title of idea	Remarks/Progress
EEE	Acharya Paramedics and Medipool	Winner of Online Hackathon on 'Innovations to defeat the novel pandemic COVID 19' organized by DCE, Darbhanga. Web Development on progress
ME	B.Doc	Winner of National Level 'Bootcamp and Hackathon on Emerging Technologies' conducted by DCE, Darbhanga. Ideation and Research
ME, CE, CSE	Room Dundo	Prototype research
Collaboration	Sambhav	Working for NASSCOM Hackathon.



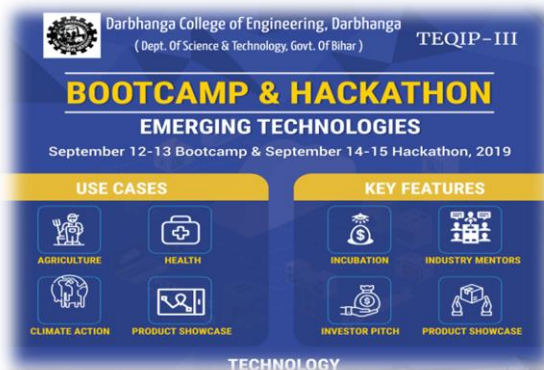
Activities by Startup Cell

HACK-E-THON-2019

The objectives of the Hackathon-2019 are to identify solutions for relevant problems existing in various sectors prevalent in the rural and urban community. The selected outcomes were given medals ,cash prizes , certificates and got an opportunity to get evaluated for Incubation at Incubation Centre IIT Patna, and if hitched will be nurtured with a seed funding as per norms.

Topics in Hackathon

- Health and wellness
- Transport
- Environment and disaster management
- Government-citizen interface
- Safety security
- Smart homes
- Digital agriculture
- Finance and commerce



Target Group(s)	Students(National level)
Hosting Organisation	Start-up cell, DCE, Darbhanga
Event Date(s)	Sept 12,13,14,15-2019
Venue	DH1-DCE,Darbhanga

HACK-E-THON-2019

JURY PANEL

1. Mr. Joseph Paul Arackalan – (Manager Incuation Center, IIT PATNA)
2. Prof. Pamod Tiwai – (Assistant Professor, IIT PATNA)
3. Mr. Pankaj Diwan – (Founder and CEO of Idealabs FutureTech Ventures, India's largest Innovation and up-skilling Company . The co-chair for open Innovation, State Innovation cell, Govt. of Telangana.)
4. Mr. Pritesh Prakhar- (Management professional and lawyer, CEO and Director of Technology Business Incubator sponsored by KI University and DST.)

Selected For Boot camp	126
Selected For Hackathon	108
Participants From DCE	84
Participants From Outside DCE	42

FIRST PRIZE

Captain & TEAM MEMBERS	Name: Akanksha , Juhi Kumari, Shilpi Kumari, Khushbu Kumari College: Darbhanga College of Engineering,
Objective	Idea is based on the QPORT Card. It would be like a health card in which all the information of the patients got stored

SECOND PRIZE

Captain & TEAM MEMBERS	Bhaskar Jha, Mahanand, Shubham Raj, Priya Jha
Objective	The idea of B.Doc is to develop a combined module for tracking status/report of all the basic and common health diseases.

THIRD PRIZE

Captain & TEAM MEMBERS	Md Rashid Anwar, Rupesh Kr, Sugam, Harshita Rani
Objective	Smart vehicle has Smart Vehicle Monitoring System(SVMS) which uses IoT technology to monitor the vehicle continuously and also to access and control remotely.

EQUITY ACTION PLAN

The Objective of the EAP is: “To ensure that all students and faculty in the project institutions have equal opportunity to avail the benefits of the Project with substantial improvement in the performance of students with special attention to the needy and ST and SC categories.

Coordinator	Mr. Akash.
Co-Coordinator	Mr. Madhav Ram
Member	Mr. Deepak Singh
Member	Mr. Sunil Kumar Sahu

Sl. No.	Name of Activity	No. of beneficiary (students)	No. of beneficiary (Faculty)	Amount spent on the activity (Approx)
1	Prerequisite Test/Diagnostic Test	All 5 th Sem. students	NA	2000
2	Bi-weekly Test in regular classes	All	NA	20000
3	Remedial classes taken by faculty (As per Time table schedule)	All	NA	0
4	Test Conducted for 2018-19 as well as 2019-20 newly admitted students during his/her Induction Program	1 st Year (2018-22 Batch)	NA	2000
5	Classes were organized for 2018-19 (Batch) First Semester Backlog Student	All backlog student	NA	0
6	Two Days Remedial class was organized, by Faculty members of IIT Patna	All 2 nd Sem. students	NA	25000
7	A week Training on soft skill was organized for 3rd Semester student	All 3 rd Sem. students	NA	200000
8	Faculty Development Programme (SC/ST Faculty)	NA	5	80000
9	Remedial classes taken by faculty (As per Time table schedule)	All	NA	0
10	Constitution of Gender Committee	172	5	0

EQUITY ACTION PLAN

11	Bi-weekly Test in regular classes	All	NA	20000
12	Constitution of grievance redress committee in college	All	All	0
13	Constitution of grievance redress committee in college for SC /ST Student	175	NA	0
14	Constitution of Student Mentoring Cell(SMC)	All	NA	0
15	Tube well (TEQIP-III/2019/BH/dced/320)			61900
16	Urinal Slab Installation(TEQIP-III/2019/BH/dced/334)			63310
17	Window Panel Repair(TEQIP-III/2019/BH/dced/335)			62606
18	Repairing and renovation of two toilet in Academic Building (TEQIP-III/2019/BH/dced/86)			128140
19	Toilet/ Washroom Renovation (TEQIP-III/2019/BH/dced/321)			64070
20	Installation of Universal Testing Machine, construction of curing tank & Platform for other equipment in Dept. of CE			60000
			Total	789026

NSS-SAMARPAN

“NSS/Samarpan” was started by a group of our college students in September, 2018 with the help faculty members. It provides opportunity to the students to take part in various government led community service activities & programs. The sole aim of the NSS is to provide hands on experience to young students in delivering community service. We have conducted various programs under NSS/Samarpan-DCE for the betterment of children, for serving the needs of those around us, to play as a part of the solution for solving social issues. The main events and steps taken under our NSS/Samarpan-DCE team are as follows

Co-ordinator	Dr. Amrit Kumar Mahato
Member	Dr. Geevarghese V Jacob
Member	Mr. Navdeep Pandey
Member	Mr. Vikas Kumar

Sl No.	Date	Activity
1	14/9/2018	Initiative taken to provide education to children in nearby slum area.
2	2/10/2018	Activities promoting Swatch Bharat Abhiyan in our college Campus
3	10/10/2018	Providing information regarding NSS, introduce NSS to 2018 batch
4	12/10/2018	Cloth collections by our NSS volunteers from college students
5	15/10/2018	Activities promoting message of Swatch Bharat Abhiyan in local area
6	18/10/2018	Book distribution in nearby area.
7	2/11/2018	Organizing drawing competition at Primary School, Mabbi
8	26/11/2018	Cloth distribution among local residents.

NSS-SAMARPAN

SI No.	Date	Activity
9	4/8/2019	Tree Plantation
10	1/3/2020	Organizing wooden box Painting competition and craft works on the theme “art and environment”
11	8/3/2020	International Women’s Day celebration
12	21/3/2020	Promoting Janata Curfew through digital poster and online platforms
13	23/3/2020	Video on how to clean our hands through sanitizer or soap and water
14	29/3/2020	Propagating message of healthy lifestyle during “2020 lockdown” using plat form of Facebook
15	11/4/2020	Paying our gratitude to COVID-warriors through digital poster
16	3/5/2020	Participated in the campaign “One minute video contest” on COVID-19 by Mindshare yuva and NSS



Activities by NSS

TWINNING CELL

This cell is dedicated to managing the training of students and faculty in the premier institutes like IITs and NITs. For the first time students of DCE, Darbhanga could get the exposure of IITs because of the efforts made by the TEQIP faculty members of Twinning Cell. Being the mentor institute of DCE, Darbhanga, 10% syllabus of few subjects are taught by the faculty of IIT Patna. Several students received trainings at IIT Patna and IIT Kanpur and enhanced their skills in emerging technologies. This cell has organized many lab visits of students in IIT. Some other works like NCC/NSS/ Social ruler welfare are being done by this cell. Twinning activities are managed by the following faculty members:

Coordinator	Mr. Sunil Kumar Sahu
Member	Ms. Sweta Kumari
Member	Mr. Rajat Gupta
Member	Mr. Ravi Ranjan Kumar

Sl. No	ACTION	REMARKS
1	The action plan for twinning activities implemented in last year and & current year planned (Y/N)	Yes
2	No. of courses/ classes/workshops conducted by the faculty of Institute under sub component 1.3 for students of 1.1 institute for training and academic development and vice versa (Min 1 per program per year).	7 (Remedial Classes by mentor institute)
3	No. of courses delivered by 1.3 institution for students of 1.1 institutions (Min 1 per program per year). (10% syllabus covered)	7 (10% syllabus coverage by mentor institute)
4	No. of Trainings conducted for faculty/ support staff of 1.1 institute by Institute under sub component 1.3 for training and academic development and vice versa (Min 1 per program per year).	2 (Faculty Development Programme)

TWINNING CELL

Sl. No.	ACTION	REMARKS
5	No. of Seminars / Techfest, and conferences conducted by Institute under sub component 1.3 for 1.1 institute for students to share research and discuss technological advancements in dynamic industrial and business environment (Min 1 per year).	1 (Techfest organised by mentor institute)
6	% of faculty perusing collaborative research (10%)	2 (6% CRS project with mentor institute)
7	No. of departmental partnership for joint research activities for applied research and technological development (1 per program).	No
8	Number of Industry partnership for joint R & D, and internships (Min 1 per year).	No
9	Career Planning Sessions by 1.3 institution for 1.1 institution (2 Sessions)	3
10	Assistance provided in short term advisory and consultancy services by Institute under sub component 1.3 for 1.1.	3 (NCC/NSS/Social Rural Welfare Team visit)
11	Workshop conducted on Outcome Based Education (OBE) by Institute under sub component 1.3 for 1.1 institute.	1 (NBA Meeting)

MANAGEMENT INFORMATION SYSTEM CELL [MIS]

MIS is a central data repository which is used to gather, organize and maintain institute data, It also process and analyze the records related to the different aspects of the institute and can generate various reports from it. MIS, which is a web based data management software has been built under TEQIP-III project of MHRD, for the project monitoring and evaluation and also to enable institute to meet all demands for data through an integrated system.

An institutional committee has been formed to perform all the activities related to the MIS web portal which consists of following members.

Coordinator	Mr. Akhilesh Kumar
Member	Ms. Punam Prabha
Member	Mr. Madhav Ram
Member	Mr. Akash
Member	Mr. Shakti Prasad Senapati

The screenshot shows the Academic MIS web portal interface. The browser address bar displays teqip-pms.gov.in/Mis/master/institute. The page header includes the logo of Academic MIS and navigation links for Institution, Reports, and Help desk. The main content area is titled "Welcome Darbhanga College of Engineering, Darbhanga (Academic Year 2019-2020)". The interface features a left-hand navigation menu and a main content area with several dropdown menus. The dropdown menus are organized into four columns:

- Institution Details:** Institution Profile, Department, Degree, Programme, Academic Autonomy Status, NBA Accreditation Details.
- Faculty Details:** Faculty (No.s), Faculty Training, Sanctioned Faculty Posts, AICTE Mandate (Exit Examination GATE, Exit Examination AMCAT, Internship, Swayam/NPTEL/MOOCs, SWAYAM Prabha, Induction Programme for Students, Innovation and Startup, Employability Skill Training).
- Student Details:** Students (Nos.), Transition Rate of Students, Campus Placement.
- Institutional Reforms:** BOG Meeting, Internal Revenue Generation, Four Funds, Institution Annual Report.

FACILITIES

HOSTELS

There are three hostels- 2 Boys' hostels and 1 Girls' hostel - at DCE, Darbhanga in which a total of 379 students are residing at present. More than 50% responsibilities are shared by the TEQIP faculty members. Due to implementation of proper method of allocations of rooms, good mess management and regular conduction of classes, the number of residents increased after 2018.

HOSTEL	Hostelers	Warden
Vidyapati Boys' Hostel	112	Mr. S.S. Choudhary Dr. Ravi Ranjan (TEQIP)
Dr. V. C. Jha Boys' Hostel	112	Mr. Mukesh Kumar (TEQIP) Mr. Sanjay Kumar
Shyama Girls Hostel	155	Ms. Sweta Kumari (TEQIP) Dr. Puja Kumari (TEQIP)



Hostel (Aerial and Front view)

LIBRARY

DCE Darbhanga has a functional library and DCE, Darbhanga, is planning to shift the Library to the new building premises at the earliest for best of use.

Library Advisory and E-Resource Committee

Sl.No.	Name of the Member	Designation
1.	Dr. Anil Kumar Chaudhury,	Professor-in-charge Library
2.	Mr. Sanjay Kumar	Asst. Professor-in-charge Library
3.	Mr. Aditya Kumar	Member
4.	Mr. Madhav Ram	Member

Highlights

- About 20,000 books with more than 1500 titles have been converted from manual stock data to soft data
- Life membership of NICEE (IIT Kanpur & Institution of Engineers)
- More than 900 students and faculties has been registered in NDL (IIT Kanpur)
- Digitization of Library through e-Granthalay is in final stage



PROCUREMENT CELL

Procurement Cell has successfully completed the procurement of equipment, furniture, software, etc. within the given time and enabled the College to procure total items of about Rs.6 Cr within the stipulated period. Faculties have taken the training for handling PMSS and the process of procurement. Activity of Procurement cell resulted into the successful utilization of procurement budget provided in TEQIP-III. The following is the list of the faculty members engaged in procurement:

Nodal Officer	Mr. C. P. Singh
Co-ordinator	Mr. Tabish Shanu
Member	Mr. Jitendra Kumar
Member	Mr. Aditya Kumar
Member	Dr. Rajesh Jena
Member	Mr. Ahsan Rabbani
Member	Mr. Prashant Kumar Singh

List of Software under the head Learning Resources

1.1.1.2 Learning Resources

Sl. No.	Name of Software	Users
1	ANSYS Academic (Mech + CFD) for ME & CE	1 (research) 25 (teaching)
2	STAADPro (Bentley academic subscription bundle) 50+ software	50 (Civil Engg.)
3	Solid Works	60 (Mech. Engg.)
4	Oracle 11G (database)	10 (CS Engg.)
5	EDWinXP (Software for PCB design and electronics lab) 63,83,800	30 (EE Engg.)
TOTAL = 63,83,800		

PROCUREMENT CELL

1.1.1.1: Equipment				
Sl.No.	Equipment name	Qty.	Dept.	
1	Laptop	07	Institute	
2	Centralized Printer	01	Institute	
3	Multifunction printer	02	Institute	
4	Desktop	40	Institute	
5	UPS 10KVA	02	Institute	
6	UPS 5KVA	01	Institute	
7	1KVA UPS	15	Institute	
8	Air Conditioner	12	Institute	
9	External Hard Drive	11	Institute	
10	Interactive Projector	17	Institute	
11	Speaker Set	06	Institute	
12	STAND PROJECTOR SCREEN	02	Institute	
13	Printer(Laser Jet 1020+)	09	Institute	
14	Projector	02	Institute	
15	PROJECTOR SCREEN WALL	17	Institute	
16	Server	01	Institute	
17	Podium Set (Digital Lectern Kiosk)	04	Institute	
18	AC Position Servosystem Trainer set	02	EEE	
19	Function Generator	10	EEE	
20	Kirchhof's current law trainer	06	EEE	
21	Bench Type Multimeter	01	EEE	
22	DIGITAL TRAINER KIT	04	EEE	
23	Electrical Conductivity	01	EEE	
24	Super position Theorem	06	EEE	
25	Electronic Balance 1 Kg	02	CE	
26	Electronic Balance 10 Kg	01	CE	
27	Electronic Balance 20 Kg	01	CE	

PROCUREMENT CELL

28	Ambient Noise Measurement	1	CE
29	Laser Distance Meter upto 100 M	1	CE
30	Mechanical Sieve shaker	1	CE
31	Rebound Hammer (Schimdt hammer)	2	CE
32	Turbidity	1	CE
33	Electronic Wt Scale: Table Top model	2	CE
TOTAL EXPENSE		99,01,306	

Equipment	99,01,306
Learning Resources	63,83,800
Furniture	19,03,600