

# *B.N.M. Institute of Technology*

An Autonomous Institution under VT

## Department of Artificial Intelligence and Machine Learning

### Augmented Reality and Virtual Reality Projects 2023-2024

#### Under Centre of Excellence – AR & VR Technology

Sl. No.	USN	Student Name	Project Name
1	1BG21AI001	Aayush Ujjwal	Futuristic Solar Panel
2	1BG21AI002	Abhishek H A	Bread toaster with Blender
3	1BG21AI003	Abhishek Kumar Kailash kumar	Domino Dynamics
4	1BG21AI004	Adarsh Shetty	Train Motion
5	1BG21AI005	Adithya M Murthy	Spider Man Trailer
6	1BG21AI006	Akhil Chowdary	Car Racing
7	1BG21AI007	Akhurath Vageesh Katti	Ship Wreck Simulation
8	1BG21AI008	Akshatha J	Fire Extinguisher
9	1BG21AI009	Akshay Kumar	Spirit of Ecstasy emblem
10	1BG21AI010	Aman Kumar Verma	Wall of Death
11	1BG21AI011	Amisha Jethmalani	Battery: Charging and Discharging
12	1BG21AI012	Amogha B V	Shoot-The-Hoop: A Cross-Platform Virtual Reality Basketball Game
13	1BG21AI014	Ananya Nittur	Air Pump
14	1BG21AI015	Ananya Ravi	Mechanism of Nail Cutter
15	1BG21AI016	Ananya R G	To design a Vegetable Cutter used in Real Time
16	1BG21AI017	Ankith H Bharadwaj	Plain Crash Simulation
17	1BG21AI018	Anusha k	Intergrated VFX Advertisement and Car Animation
18	1BG21AI019	Ashish B Rao	Combination Lock
19	1BG21AI020	Ashritha R	Production of Green Hydrogen
20	1BG21AI021	Ashwani Anand	Design and Implementation of a Dancing Robot in Blender
21	1BG21AI022	Avik Shivakumar	Cosmic Collision : The Birth of a Dyson Swarm
22	1BG21AI023	Bhuvan Manohar Timmannanavar	Car Crash Simulation

23	1BG21AI024	C Raghuv Kasyap	Crankshaft using Blender
24	1BG21AI025	Charan Y R	Bicycle Riding
25	1BG21AI026	Chinmaye N G	Animating Global Warming in Blender
26	1BG21AI027	Chiran B K	3D Model of Detailed Solar System
27	1BG21AI028	Dandi Venkata Sai Suhass	Ray Cast mini game in Blender
28	1BG21AI029	Darshan N K	The Mechanical Pen
29	1BG21AI030	Deeksha N Murthy	The Stapler Animation
30	1BG21AI031	Deepak K L	Dope Dance Fusion
31	1BG21AI032	Dhruva Kashyap	Volcano Eruption
32	1BG21AI033	Puneeth G R	"Dragon's Roar: Animated Dragon Creation in Blender for AR/VR
33	1BG21AI034	Gagan A	Basic Apple Watch Commercial using Blender
34	1BG21AI036	Hamsha Priya V	Perfume Bottle mechanism
35	1BG21AI037	Harshitha V	3D Community Plan
36	1BG21AI038	Hemanth Gowda	Seatbelt and air bag mechanism
37	1BG21AI039	Hemashree Yogeesha	Indian Music Studio
38	1BG21AI040	Inchara V	Plant Growth
39	1BG21AI041	Jahanavi S	Village Fair
40	1BG21AI042	Jaishree G A	Working of Cycle
41	1BG21AI043	Jathin N	Sci-fi Movie trailer
42	1BG21AI044	Jeevan S	To design a Watch and to show the mechanism of the watch
43	1BG21AI045	K A Varshini	3D Community Plan
44	1BG21AI046	Kushal K Gowda	Sci-fi Movie trailer
45	1BG21AI047	Kajal S Singh	Claw Machine Module
46	1BG21AI048	Karanam Divya Sree	House Interiors
47	1BG21AI049	Karishma Chauhan	Enhancing Kitchen Safety and Efficiency: Development Integration of a Specialized Lighter Mechanism
48	1BG21AI050	Karthik Dinesh Vernekar	Working of Bulb
49	1BG21AI051	Karthika Reddy N	Blender AR/VR Project : Animated MotorBike
50	1BG21AI052	Keerthan K M	Animated Sniper Shooting and Reloading Simulation
51	1BG21AI053	Keertivardhan	Helicopter Animation
52	1BG21AI054	K M Meghana	House Interiors
53	1BG21AI055	Kondam Harikethan Reddy	Rocket Launch Animation
54	1BG21AI056	Krishi Y Antad	Animating Padlock Unlocking with Key in Blender
55	1BG21AI057	Kunder Aryan Uday	Life cycle of star

56	1BG21AI058	Laasya Kalyan Mitta	Leveraging Blender for Dynamic Ecomic Data Visualization
57	1BG21AI059	Laasya Reddy M	Cooking Omelette in the Virtual Kitchen
58	1BG21AI060	Likith Athreya	Spiderman Animation
59	1BG21AI061	Loukya Harisha	Conveyor belt in a factory
60	1BG22AI400	Chandan Kumar B G	Animating Aeroplane take off in Blender
61	1BG22AI401	Chandana K L	A Cautionary Tale of Urban Cyclists
62	1BG22AI402	Jagadish I	Candy Bounce
63	1BG22AI403	Mahesha S	Car Animation
64	1BG22AI404	Naveena G N	Compound Collision Chain
65	1BG22AI405	Pallavi S Bhonsle	Implementation of a 3D Model of Machine and Piston Rig for Security Purposes in Blender Animation
66	1BG22AI406	Sathish N P	Creating a Stormy Ocean
67	1BG22AI407	Sheshadri N	VR Forset Fire Experience: Immersive Simulation of Wildfire
68	1BG21AI062	M Anusha	Pink Panther
69	1BG21AI063	M D Prajwal	Tempest tides
70	1BG21AI064	Madhav S	The NFS Animation
71	1BG21AI065	Madhu Shree N	Mars Rover Animation
72	1BG21AI066	Mamatha H A	Drone Animation
73	1BG21AI067	Manjunath S	The Blender beats: dancing for glory
74	1BG21AI068	Mohak D	Holocraft
75	1BG21AI069	Mohammed Salman D	red autumn forest animation
76	1BG21AI071	Monish D P	Saviour's Embrace
77	1BG21AI072	Sanjana N	factory animation
78	1BG21AI073	Naira Anjum	the Guardian's shield
79	1BG21AI074	Nidhi Chandrasekhar Ghatge	Martian walk
80	1BG21AI075	Nikhil N	ghost protocol
81	1BG21AI076	Ojaswini Gavadi	immersive laptop experience
82	1BG21AI077	Om Pathak	crafting realistic ocean waves in blender
83	1BG21AI078	P Srihith Reddy	ship in storm
84	1BG21AI079	Pavithra M	RoboCraft
85	1BG21AI081	Pragathi M Shetty	doraemon friends and family
86	1BG21AI082	Pranamy R Bairy	Pac-Mania
87	1BG21AI083	Pranav Varenva V	Stadium Anmation
88	1BG21AI084	Pranava Bharadwaj M K	Inferno on the Seas
89	1BG21AI085	Rahul V Iyengar	NFS
90	1BG21AI086	Ratikesh Kumar Singh	home music studio

91	1BG21AI087	Reena R	Majestic Muse- A Museum of Elegance
92	1BG21AI088	Rishab A Merllecha	Visions unveiled
93	1BG21AI089	S Chaitra	Shinchan
94	1BG21AI091	Sachith B	wilderness retreat
95	1BG21AI092	Sagarika Pattabhi	Cosmic Voyager
96	1BG21AI093	Saket S	NFS
97	1BG21AI095	Sandeep R	Short Movie
98	1BG21AI096	Sanjay Gowda S	Dynamic Boat in a Stormy Ocean
99	1BG21AI097	Sanjay N	Realistic Car Animation
100	1BG21AI098	Sathvik N R	Anime Character
101	1BG21AI099	Shamitha Gaddam	strike with vision
102	1BG21AI100	Sharath Chandra B	Bowling Bash Using Blender
103	1BG21AI101	Shiven Dashora	Car Animation
104	1BG21AI102	Shreya H	Cosmic Oddyssey Spaceship Battle
105	1BG21AI103	Shreyas Naidu M	factory animation
106	1BG21AI104	Shri Ranjani S M	Olaf: Frozen
107	1BG21AI105	Shrividya K P	Animation of 3D Cartoon Charatcter
108	1BG21AI106	Shuchi Srikant Karagudari	Rocket Dodger: Asteroid Adventure
109	1BG21AI107	Siddarth S	Realistic Subway Environment Creatiom
110	1BG21AI108	Smrithi R	Extraterrestrial Descent
111	1BG21AI109	Soujanya K N	Chess Fusion
112	1BG21AI111	Sujan Amith	Space Station
113	1BG21AI112	Suzane Fernandes	volcano Eruption
114	1BG21AI113	T K Lochan	iguana animation
115	1BG21AI116	U Guna Vignesh	Futuristic War Scene
116	1BG21AI117	Varsha Shankaran	Virtual Garden
117	1BG21AI118	Vasista Rajesh	dynamic volcano
118	1BG21AI119	Vibha S Prasad	Shiva Temple Architecture
119	1BG21AI120	Vidhyashree S	Ocean Odyssey: Journey to Pandora
120	1BG21AI121	Vignesh Reddy	Car Garage and Animation
121	1BG21AI122	Vinay Kumar	Product Water Splash Simulator
122	1BG21AI123	Vishal R	Sky Scraper Architecture
123	1BG21AI124	M Ramya	Little Guy's Animated Journey
124	1BG21AI125	Shreyas S Rao	Airplane Takeoff
125	1BG21AI126	Charan P R	Journey on the Rails: A Blender Train Adventure
126	1BG21AI127	Aaryan K V	Thrill Ride : A Roller Coaster Adventure
127	1BG22AI408	Suchithra R B	Bala Krishna's Ponagal Delight"
128	1BG22AI409	SUMANTHA T	Rubik's Cube
129	1BG22AI410	Tejas D	Waves of Wonder: A Blender Nautical Quest
130	1BG22AI411	Yashodha T	Tom and Jerry: Mischief Unleashed

### SAMSUNG INNOVATION CAMPUS DETAILS

Sl. No.	Course Name	No. of Hours	No. of Students Selected	STATUS
1	Artificial Intelligence	360	35	COMPLETED [ yet to receive certificates]
2	Computer and Programming	90	35	COMPLETED [ yet to receive certificates]
3	IOT	240	35	Starting from 20th May 2024

### SAMSUNG PRISM WORKLET DETAILS

Sl. No.	Worklet ID	Worklet Title	STATUS
1	OD213BN	(Vision) URL Recognition	COMPLETED
2	IOTS60BN	Image Processing  Detection and counting of potholes using video sequences	COMPLETED Award Winning Worklet
3	230303	Quickshare application Log anomaly detection	COMPLETED
4	23VIS20BN	Automated Merge of Productivity Data	COMPLETED
5	23OD11BN	Understanding User Charging Behaviour	COMPLETED
6	23VIS22BN	Border Matching	COMPLETED
7	23CP01BN	Create ASN decoder after parsing 38.331 and 36.331	COMPLETED
8	23VIS36BN	Camera Application Launch Time	Conclusion Meeting
9	23V107BNMIT	Modification of Read Speech to Conversational Speech	1st Monthly Review Completed
10	24NM01BN	Modem SW   Tool development for feature flag compression between two releases and align current code accordingly	Introductory Meeting is Completed - Yet to Start
11	24SPF01BN	Android Web View   Apply theme to web view as per App policy	Introductory Meeting is Completed - Yet to Start
12	24OD02	(Doc AI) Private Card - Driving License	Introductory Meeting is Completed - Yet to Start
13	23OD11BN	Analysing User Charging Behaviour	Introductory Meeting is Completed - Yet to Start

# *B.N.M. Institute of Technology*

An Autonomous Institution under VTU

**Department of Information Science & Engineering**

Date: 11-05-2024

## **Center of Excellence Details**

<b>Sl.No</b>	<b>Name of Course</b>	<b>Conducted by</b>	<b>No. of hours</b>	<b>No. of students</b>
1	Microsoft Data Analysis Associate (DA-100)	Women Empowerment Program-Centre of Excellence, powered by Honeywell	100	119
2	Certificate course on Advance Java J2EE	Advance IT Skill Training a CSR initiative powered by ITC Infotech. Capgemini	420	60



Vidyayamruthamashnuthe

# B.N.M. Institute of Technology

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Approved by AICTE, Accredited as Grade A Institution by NAAC.

All eligible UG branches – CSE, ECE, EEE, ISE & Mech. Engg. are Accredited  
by NBA for academic years 2018-19 to 2021-22 & valid upto 30.06.2022



Bhageerathi Bai Narayana Rao Maanay  
Educational Institutions  
1972-2022



## EXPRESSION OF INTEREST – WOMEN EMPOWERMENT PROGRAM Centre of Excellence (CoE)

College Name : BNM Institute of Technology  
Location : P O No: 7087, 27<sup>th</sup> Cross, 12<sup>th</sup> Main Road, Banashankari II Stage  
District : Bangalore  
State : Karnataka


With reference to the communication from ICT Academy, we hereby confirm our willingness to be an implementation institution for ICT Academy for the “Women Empowerment Program” – Centre of Excellence, powered by Honeywell. We prefer to get our students trained and certified in “Microsoft Data Analyst Associate (DA-100)”.

We confirm the following:

1. We confirm that our institution will nominate 110 girls students from final year graduating students of Engineering Circuit branches/BSc., CS, BSc, IT & BCA as per the eligibility criteria.
2. We confirm to provide 100 Hours of the training schedule for the Virtual/Live ILT classes and ensure students complete 100 Hours of training on the course on Technology specified by ICT Academy.
3. We confirm to nominate 4 Women Faculty Members as part of this program as mentors along with the Students Enrollment Sheet.
4. We ensure that there will not be any dropouts from the nominated list of students.
5. We confirm that the nominated mentors will be part of the training program and will facilitate student involvement and participation.
6. We confirm to facilitate students training, Assessment, Volunteering Sessions, Hackathons, and Placement activities to be organized by ICT Academy and Honeywell under this initiative.
7. We confirm to execute this unique “Women Empowerment Program – Centre of Excellence” successfully in the next 6 months.

Nomination of Program Coordinator for this Program.

Name : Dr. S. Srividhya  
Designation : Professor & HOD ISE  
Email : ssrividhya@bnmit.in  
Mobile Number : 9620476339

  
Principal  
B.N.M. Institute of Technology  
27th Cross, 12th Main, Banashankari II Stage  
Bengaluru - 560 070

Signature with Seal of Principal/Chairman

Administrative Office & Campus: 27th cross, 12th Main, Banashankari 2nd Stage, Bengaluru 560070

Ph: +91 80 26711780 / 81 / 82 Email: principal@bnmit.in www.bnmit.org

*Bhageerathi Bai Narayana Rao Maanay Charities*



# INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

Powai, Mumbai - 400 076

Original For Recipient/Duplicate

## TAX INVOICE

IRN No.:

PAN: AAATI1446A

OFFICE OF DEAN R&D

Email-ID: dean.rnd@iitb.ac.in | Phone Number: +912225767030/ 7039

GSTIN: 27AAATI1446A1Z7

TAN: MUMI00377G

Invoice no.: IITBCSM232001062

Invoice Date: 11-12-2023

IIT Bombay Internal Ref. no.: 2369001508

Payment Term: Pay immediately w/o deduction

Bill To:

Name: BNM Institute of Technology (318355)

Address: Post Box No. 7087, 12th Main Road, 27th Cross, Banashankari II Stage, Bangalore 560070

State / Union Territory: Karnataka

State / Union Territory Code: 29

GSTIN/UIN:

Place of Supply: 29 - Karnataka

Project Title

e-Yantra Income Generation

Sr. No.	Description of Service	HSN/ SAC	Taxable Value	CGST		SGST/ UTGST		IGST		Total Value
				Rate	Amount	Rate	Amount	Rate	Amount	
1	E-YANTRA TRAINING AND EQUIPMENT	999294	211864.00	0.00	0.00	0.00	0.00	18.00	38136.00	250000.00
Total			211864.00		0.00		0.00		38136.00	250000.00
Net Payable Value (in figure)				₹NR						250000.00
Net Payable value (in words)				INR	Two Lakh Fifty Thousand Rupees					
GST amount (in words)				INR	Thirty Eight Thousand One Hundred Thirty Six Rupees					

### Bank Details:

Account Name: Indian Institute of Technology Bombay

Bank Name: State Bank of India, IIT Powai Branch, Mumbai-400076, India

Bank IFSC Code: SBIN001109

Account Number: 00000010725729173

Swift Code: SBININBB519

In case of payment by draft, to be drawn in favour of Registrar, IIT Bombay.

*[Handwritten Signature]*  
Authorized Signatory  
सहायक कुलसचिव / Assistant Registrar  
परियोजना एवं परामर्श लेखा  
Project & Consultation Accounts  
संकायाध्यक्ष, अनुसंधान एवं विकास कार्यालय  
Dean (R & D) Office, IRCC  
भारतीय प्रौद्योगिकी संस्थान, मुंबई  
Indian Institute of Technology Bombay,  
पवई, मुंबई / Powai, Mumbai - 400 076  
13/12/23



## CENTRE OF EXCELLENCE-ELECTRIC VEHICLE TECHNOLOGY

S.no	Project name	Duration	Amount Spent	Type of Technology	Current status of the project
1	Portable Solar powered battery bank and inverter	2017-18	13,500.00	ELECTRONIC VEHICLE TECHNOLOGY	Prototype available
2	Solar Powered Bicycle	2017-18	59,150.00	ELECTRONIC VEHICLE TECHNOLOGY	Prototype available
3	Design and Development of three Wheeled E Cycle (Cyclopack)	2018-19	1,99,988.00	ELECTRONIC VEHICLE TECHNOLOGY	Prototype available
4	Fuzzy Logic Electric Trike*	2018-19	2,00,000.00	ELECTRONIC VEHICLE TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
5	Intelligent Electric Car 10 (IEC-10)	2019-20	2,00,000.00	ELECTRONIC VEHICLE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
6	Smart Battery Management System for Electric Vehicles	2019-20	1,73,350.00	ELECTRONIC VEHICLE TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
7	Electro-Lite	2019-20	2,00,000.00	ELECTRONIC VEHICLE TECHNOLOGY	Prototype available
8	Renewable energy based micro inverters for rural area applications - Solar Charging Station	2019-20	2,00,000.00	ELECTRONIC VEHICLE TECHNOLOGY	Prototype available
9	Smart Electrical Bi-Cycle	2021-22	1,80,960.00	ELECTRONIC VEHICLE TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
10	Development of Hybrid Motor Bike	2021-22	1,32,000.00	ELECTRONIC VEHICLE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
11	Electric Wheel Chair	2021-22	1,97,402.00	ELECTRONIC VEHICLE TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
12	Design and Development of Solar powered refrigerated cart using compressor	2022-23	1,36,306.00	ELECTRONIC VEHICLE TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
13	Design and Fabrication of Regenerative foldable E-Bike	2022-23	38,789.00	ELECTRONIC VEHICLE TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
14	Complex Model based estimation of state of Charge and thermal management for Batteries	2022-23	2,00,000.00	ELECTRONIC VEHICLE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
15	Design of closed loop flywheel generator using magnetic bearings	2022-23	2,00,000.00	ELECTRONIC VEHICLE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
16	Solar powered based electric charged station	2022-23	70,000.00	ELECTRONIC VEHICLE TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
			<b>24,01,445.00</b>		

## CENTRE OF EXCELLENCE-3D PRINTING TECHNOLOGY

S.No	Project name	Duration	Amount Spent	Type of Technology	Current status of the project
1	3D Printer using Linear Guide Rail & Ball Screw Mechanism	2019-20	2,00,000.00	3D PRINTING TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
2	Liquid Based 3D Printer - Dental and Surgical Guides	2019-20	1,99,650.00	3D PRINTING TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
3	3D Printer using Heated Chamber	2019-20	2,00,000.00	3D PRINTING TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
4	SEMI AUTOMATIC SCREEN-PRINTING MACHINE	2019-20	2,00,000.00	3D PRINTING TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
5	CNC Machine for PCB Fabrication	2019-20	1,92,900.00	3D PRINTING TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
6	High Precision CNC Machine	2021-22	1,99,913.00	3D PRINTING TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
7	Design and Development of ARIA-I an IoT based processing line for Acrylic Cutting	2021-22	2,00,000.00	3D PRINTING TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
8	Development of a Low Cost Dual Nozzle FDM Printer	2021-22	1,70,956.00	3D PRINTING TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
9	Design and Development of ARIA-II an IoT based processing line for Acrylic Bending	2021-22	2,00,000.00	3D PRINTING TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
10	Integration of 25 point bilinear leveling for AM System	2021-22	2,00,000.00	3D PRINTING TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
11	Industry 4.0 connectivity and controlling for AM system	2021-22	2,00,000.00	3D PRINTING TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
12	Smart Heat Dissipation using 3D Scanning and processing of CFM for servers (3D Scanner)	2021-22	2,00,000.00	3D PRINTING TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
			<b>23,63,419.00</b>		

## CENTRE OF EXCELLENCE HEALTHCARE TECHNOLOGY

S.No	Project name	Duration	Amount Spent	Type of Technology	Current status of the project
1	Design Development and Fabrication of 3D Printed Prosthetic Arm	2017-18	2,00,000.00	HEALTHCARE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
2	Easy Foot	2017-18	98,686.00	HEALTHCARE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
3	Jacket for Mobility Aid to Blind People	2017-18	45,104.00	HEALTHCARE TECHNOLOGY	Prototype available
4	BLINKOM	2017-18	43,000.00	HEALTHCARE TECHNOLOGY	Prototype available
5	Assistive Technology for Physically challenged people	2017-18	2,00,000.00	HEALTHCARE TECHNOLOGY	Prototype available
6	BrainWave Monitoring System	2017-18	32,486.00	HEALTHCARE TECHNOLOGY	Prototype available
7	Lifi Based Blind Indoor Navigation System for Visually Impaired People	2017-18	26,485.00	HEALTHCARE TECHNOLOGY	Prototype available
8	Development and Fabrication of a Mechanically Actuated Medical Laboratory Centrifuge	2018-19	82,123.00	HEALTHCARE TECHNOLOGY	Prototype available
9	Balance Mate	2018-19	1,99,860.00	HEALTHCARE TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
10	Detection of Neurodegenerative Diseases using Handwriting Analysis	2018-19	40,499.00	HEALTHCARE TECHNOLOGY	Prototype available
11	Lifeline	2018-19	1,60,000.00	HEALTHCARE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
12	Foot pressure Sensor for Physiotherapy applications	2018-19	1,02,069.00	HEALTHCARE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
13	Stereoscopic Images	2018-19	58,000.00	HEALTHCARE TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
14	Autonomous Ariel Medical Assistance	2018-19	1,22,550.00	HEALTHCARE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
15	SatvaKhara	2019-20	1,74,640.00	HEALTHCARE TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
16	Vibhuthi Vending Machine	2019-20	1,30,750.00	HEALTHCARE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
17	Development of Low-Cost Ventilators	2019-20	2,00,000.00	HEALTHCARE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
18	Digital Oratory solutions using NLP and Neural Networks	2019-20	59,200.00	HEALTHCARE TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS

19	I-Kshana : Remote and real time monitoring system for people in need of special care	2019-20	47,400.00	HEALTHCARE TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
20	Predicting Seizure onset with intracranial electroencephalogram (EEG) data	2019-20	10,692.00	HEALTHCARE TECHNOLOGY	Prototype available
21	Interactive bot for geriatric healthcare using natural language processing and neural networks (Health Bot)	2019-20	19,917.00	HEALTHCARE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
22	Raspberry pi based SOP Monitoring during COVID-19	2019-20	58,000.00	HEALTHCARE TECHNOLOGY	Prototype available
23	Development of technique to estimate the correctness of yoga posture	2019-20	25,100.00	HEALTHCARE TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
24	TAGALONG: An Assistive Device for Alzheimer Patients	2021-22	3,741.00	HEALTHCARE TECHNOLOGY	Prototype available
25	Lungxometer	2021-22	32,970.00	HEALTHCARE TECHNOLOGY	Prototype available
26	Thermosiphon Water Purification System	2021-22	1,00,000.00	HEALTHCARE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
27	Wireless Robotic Arm	2021-22	39,850.00	HEALTHCARE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
28	Brain Computer Interface Robotic Arm	2021-22	20,089.00	HEALTHCARE TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
29	3D Orthopedic Reconstruction and development	2021-22	2,00,000.00	HEALTHCARE TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
			<b>25,33,211.00</b>		

## CENTRE OF EXCELLENCE-SMART TECHNOLOGY

S.No	Project name	Duration	Amount Spent	Type of Technology	Current status of the project
1	Virtual Eye	2017-18	70,000.00	SMART TECHNOLOGY	Prototype available
2	Laser Induced Music System	2017-18	92,424.00	SMART TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
3	Pneumatic Bumper and Braking System	2017-18	26,984.00	SMART TECHNOLOGY	Prototype available
4	Obstacle detection for the blind	2018-19	1,39,838.00	SMART TECHNOLOGY	Prototype available
5	Intellicopter	2018-19	1,61,718.00	SMART TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
6	Image Analysis - CCTV	2018-19	58,000.00	SMART TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
7	Face recognition with anti-spoofing	2019-20	81,000.00	SMART TECHNOLOGY	Prototype available
8	Under Water image enhancement (copy right)	2019-20	15,500.00	SMART TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
9	Pi Skate – An Electric Skateboard	2019-20	9,735.00	SMART TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
10	Smart automative system	2019-20	41,584.00	SMART TECHNOLOGY	Prototype available
11	Sthree Raksha: Panic intimation device for women	2019-20	37,500.00	SMART TECHNOLOGY	Prototype available
12	Contactless Kiosk using Hand gestures	2019-20	36,000.00	SMART TECHNOLOGY	Prototype available
13	Design and Development of Turning Circle Radius Measuring Device	2019-20	62,033.00	SMART TECHNOLOGY	Prototype available
14	Plug and Play cubicles	2019-20	38,900.00	SMART TECHNOLOGY	Prototype available

15	Indoor Surveillance Drone	2019-20	58,728.00	SMART TECHNOLOGY	Prototype available
16	Automated driver-assistance systems (ADAS) for Truck	2021-22	22,602.00	SMART TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
17	IoT based Smart Farming	2021-22	47,942.00	SMART TECHNOLOGY	Prototype available
18	Know Your Plants	2021-22	21,932.00	SMART TECHNOLOGY	Prototype available
19	Smart Ration Distribution System	2021-22	30,000.00	SMART TECHNOLOGY	Prototype available
20	Fire Drill procedure in VR	2021-22	2,00,000.00	SMART TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
21	Plant Simulator -VR	2021-22	2,00,000.00	SMART TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
22	FITQUA : DIGITAL WATER BOTTLE	2021-22	1,50,000.00	SMART TECHNOLOGY	Prototype available
23	Food Serving Robot for canteens and Hotels	2021-22	1,70,000.00	SMART TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
24	Mood Based Laser Guided Music System	2022-23	2,00,000.00	SMART TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
25	Smart Campus using LoRaWAN	2022-23	2,00,000.00	SMART TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
26	Smart Cradle for Baby Monitoring System	2022-23	53,344.00	SMART TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
27	Gan based Art Generator for Object Detection and Categorisation using Deep Learning	2022-23	1,50,000.00	SMART TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
28	Drones in forest Fire Mitigation	2022-23	1,50,000.00	SMART TECHNOLOGY	Prototype available
29	A Graphical User Interface to Automate Industrial Robotic Arm	2022-23	1,65,000.00	SMART TECHNOLOGY	Prototype available

30	Shadow Wheels : Computer Vision Motor aided vehicular tracking system	2022-23	68,000.00	SMART TECHNOLOGY	Prototype available
31	FakeOut: Revolutionizing Currency Security and Accessibility for All	2022-23	60,000.00	SMART TECHNOLOGY	Prototype available
32	Fire Drill -Phase 2	2022-23	2,00,000.00	SMART TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
33	Plant Simulator - Phase 2	2022-23	2,00,000.00	SMART TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
34	INDUSTRIAL BOT	2022-23	2,00,000.00	SMART TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
35	Reception Kiosk	2022-23	1,00,300.00	SMART TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
36	ARVR Three-phase Induction Motor & Synchronous Generator	2022-23	2,00,000.00	SMART TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
37	ARVR Kinematics and Dynamics of Machines	2022-23	2,00,000.00	SMART TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
38	AI mirror for smart monitoring	2022-23	2,24,200.00	SMART TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
39	Camera Traffic Generator	2022-23	2,00,000.00	SMART TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
			43,43,264.00		

## CENTRE OF EXCELLENCE-CLEAN AND GREEN TECHNOLOGY

S.no	Project name	Duration	Amount Spent	Type of Technology	Current status of the project
1	AGROTONA	2017-18	1,18,820.00	CLEAN AND GREEN TECHNOLOGY	Prototype available
2	Energy Harnessing	2017-18	36,278.00	CLEAN AND GREEN TECHNOLOGY	Prototype available
3	Money Bin	2018-19	1,25,020.00	CLEAN AND GREEN TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
4	Automatic Waste Segregator	2018-19	95,781.00	CLEAN AND GREEN TECHNOLOGY	Prototype available
5	Detachable Smart Faucet	2018-19	1,51,028.00	CLEAN AND GREEN TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
6	PLECO	2018-19	1,58,368.00	CLEAN AND GREEN TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
7	Trash Bot	2018-19	1,62,041.00	CLEAN AND GREEN TECHNOLOGY	Prototype available
8	Wind Injection Turbine	2018-19	98,976.00	CLEAN AND GREEN TECHNOLOGY	Prototype available
9	Development and Fabrication of Organic Waste converter	2018-19	34,732.00	CLEAN AND GREEN TECHNOLOGY	Prototype available
10	Biodegradable Diapers	2018-19	58,000.00	CLEAN AND GREEN TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
11	Pushcart	2019-20	1,72,725.00	CLEAN AND GREEN TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
12	CO2 Scrubber	2019-20	1,28,000.00	CLEAN AND GREEN TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
13	Low Wind Velocity Turbine for Domestic Purpose	2019-20	1,65,479.00	CLEAN AND GREEN TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
14	Design and Fabrication of Eco-Friendly Device for CO2 Adsorption	2019-20	15,200.00	CLEAN AND GREEN TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
15	Fire Dire	2019-20	46,700.00	CLEAN AND GREEN TECHNOLOGY	Prototype available
16	Solar Smart Bench	2021-22	1,70,830.00	CLEAN AND GREEN TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS



17	Design and Development of a Bio Catalytic Devise for Air Pollutant Adsorption	2021-22	50,000.00	CLEAN AND GREEN TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
18	Solar-Powered Vaccine Refrigerator	2021-22	38,470.00	CLEAN AND GREEN TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
19	Smart Water Purification Using Bio Adsorbant	2021-22	1,76,829.00	CLEAN AND GREEN TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
20	Smart Dustbin with Automatic Segregation and Collection	2021-22	27,943.00	CLEAN AND GREEN TECHNOLOGY	Prototype available
21	Design and Development of a Compact Waste Shredder Machine	2021-22	1,10,131.00	CLEAN AND GREEN TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
22	Efficient Drip Irrigation System using IOT sync to Web Server	2021-22	32,942.00	CLEAN AND GREEN TECHNOLOGY	Prototype available
23	Wet Waste Management Unit for households	2021-22	1,95,000.00	CLEAN AND GREEN TECHNOLOGY	Prototype available
24	Development of a robot to collect oil from ocean surface	2022-23	32,332.00	CLEAN AND GREEN TECHNOLOGY	Prototype available
25	Agrowaste biochar impregnated with nano particles for water purification	2022-23	1,60,000.00	CLEAN AND GREEN TECHNOLOGY	IPR/STARTUPS/COMMERCIALIZATIONS
26	Environmental protect by tracking emission test on registered vehicles	2022-23	58,700.00	CLEAN AND GREEN TECHNOLOGY	Prototype available
27	Automated Lawn Mover robot	2022-23	55,000.00	CLEAN AND GREEN TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
28	To Implement Site Specific Soil Nutrients Management System for Fertilizer Recommendation Nature of the project: IoT & Machine Learning	2022-23	1,69,000.00	CLEAN AND GREEN TECHNOLOGY	Prototype available
29	Automobile Exhaust Purification Device	2022-23	80,000.00	CLEAN AND GREEN TECHNOLOGY	Prototype developed for Tech Transfer /Commercialization
			29,24,325.00		

## **CENTRE OF EXCELLENCE- TOYOTA**

**All the students at 2<sup>nd</sup> year level will get the hands-on exposure on disassembling and reassembling of Toyota Innova engine. All the students will also understand the working principle behind all parts of Toyota fortuner engine and Innova engine through cut-section models of the engines provided by Toyota Kirlosker Pvt Ltd**

# *BNM Institute of Technology*

## **Department of Electronics and Communication Engineering**

### **Projects and Internship under Centre of Excellence – Senquire for the year 2023-24**

Final year project

VAFFO-Vision Assistance for forklift Operation

Rashmitha R Shet 1BG20EC072

Shamitha M 1BG20EC086

Sukruth Raghavendra R 1BG20EC097

November 2023 - May 2024

Final year project

Dashboard integration for forklift- BLOS operation

Charita G P 1BG20EC022

Impala A. 1BG20EC039

Kushal M. 1BG20EC050

NOVEMBER 2023 - May 2024

Internship in Senquire

Title: Camera Traffic Generator

Semester: 5th

Date:25/09/2023 to 10/11/2023

Students:

- Pranav Upadhyay - 1BG21EC066
- Saket Raj - 1BG21EC077
- Ujwal R K - 1BG21EC102
- Unnathi G D - 1BG21EC103
- Vineeth Bharadwaj - 1BG21EC108
- Vyshak T M - 1BG21EC111