



HKBK College Of Engineering

The Institution's Innovation Council (IIC-5)

Annual Report 2022-2023

A. About IIC Institute:

Vision:

"Our incubator's vision is to be a beacon of innovation, where infrastructure meets inspiration, human resources provide unwavering support, and technology facilities empower entrepreneurs to realize their dreams and revolutionize the business landscape."

Mission:

"Empowering entrepreneurs is our driving force. Our mission is to offer startups a supportive environment that includes cutting-edge infrastructure, a team of skilled mentors, and essential technology resources. Together, we aim to catalyze the growth of groundbreaking ideas and businesses."

Journey:

The Innovation Council of the institution was officially registered on September 29, 2022, in collaboration with the Ministry of Education's Innovation Council, Government of India. Our council, known as IIC My Council, consists of a mix of external experts from academia and industry, as well as internal academicians. We have conducted two quarterly meetings, one in-person and one online, to assess the progress of the Innovation Council and outline the action plan for its activities throughout the four quarters.

As part of our collaboration with the Ministry of Education, we established the HKBKCE Innovation Repository. Subsequently, we received a total of 35 student ideas and 5 student innovations under the YUKTI Innovation Challenge 2023. Furthermore, we have trained 10 IIC functionaries to serve as Innovation Ambassadors at both foundational and advanced levels. All of them have also registered themselves as Evaluators and Mentors by submitting their Skilling Reports.

We are thrilled to announce that HKBKCE has been nominated to receive funding under the Impact Lecture Scheme, a recognition that fills us with pride."

Diversified Representation from Industry, Interdisciplinary & Dept s/Units:

The Innovation Council at HKBKCE has established partnerships with the following industries and Intellectual Property Rights (IPR) experts.

1. The Govt Tool Room and Training Center (GTTC), Bengaluru, Govt of Karnataka.
2. Technologies Global Pvt Ltd.
3. Entuple Technologies Pvt Ltd and

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4. IPR Expert Mr Singhal

B. IIC Functionaries

1. President & NIRF Coordinator: Dr Tabassum Ara, Principal and HOD AI & ML Department
2. Vice President & Start-up Activity Coordinator: Prof. Surendra K V, Project Officer-IDC and Assistant Professor, ECE Department
3. Convenor, Social Media Coordinator & Member: Mr Vinay A L, Head Student Support Services and Outreach
4. ARIIA Coordinator: Dr Mamatha Y N, Professor, ECE Department
5. IPR Activity Coordinator: Dr Loganathan D, Professor, ECE Department
6. Innovation Activity Coordinator: Dr Deepak N R, Professor, CSE Department
7. Internship Activity Coordinator: Prof Mujeeb Ahmed, Asst Professor, ME Department
8. Member: Prof. Krishna Ranjani, Asst Professor, AI & ML Department
9. Member: Dr Syed Mustafa, Professor & Head, ISE Department
10. Member: Dr Usman Aeijaz, Assistant Professor, ISE Department

C. Resource strength

Sl No	Resource strength	Quantity
1	Total No of IIC Members	32
2	Total No of Innovation Ambassadors	10
3	Total No of Faculty Mentors from the Portal	10
4	Pre-Incubation Units	1 Seminar Hall, 1 Conference Room, 1 Meeting Hall, High Speed Internet, 30 Desktops, Dedicated Printer, Digital Library with access to

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		IEEE, Cafeteria, Mentors from Academia and Industry
5	Incubation Units	Proposed
6	IP Facilitation Unit	Proposed

D. Facilities (Infrastructure of Pre-Incubation & Incubation kind and student bodies/Clubs engaged in promotion of Innovation and Entrepreneurship in the campus)

Pre-Incubation Facilities:

Our amenities and assets encompass a seminar hall, conference room, meeting hall, high-speed internet connection, 30 desktop computers, a designated printer, a digital library with access to IEEE resources, an on-site cafeteria, and a group of mentors drawn from academia and industry.

Incubation Unit Facilities: The registration process with MCA is currently in progress.

Student Club: Center for Entrepreneurship Development (CED).

E. Achievements

- Number and different types of I&E and IPR activities conducted- 14
- No of Student's and Faculty Ideas generated- 35
- No of students & Faculty Innovation/Prototypes developed-5
- No of Ips generated and published and granted-3
- No of Student & Faculty Start-ups/Ventures established-2
- Amount Spent on promotion and Awareness generation on Innovation Entrepreneurship in the campus-5000 INR
- Amount grant or fund supported to student & Faculty lead Innovations, Start-ups and IPR-3000 INR
- No of Technology Transfer and Commercialization happened- Nil

F. Highlights of few best IIC Faculty/Student members and their achievements/Rewarded for the innovations at different forum (Profile of few faculties with 2-3 lines of their Achievements)

Student innovations have been chosen, and funding has been approved for each innovation through

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the Karnataka State Council for Science and Technology (KSCST) in the 46th Series Student Project Programme (SPP) under the sponsored projects category.

Following table gives the details.

Sl. No.	PROPOSAL REFERENCE NO.	PROJECT TITLE	COURSE	BRANCH	NAME OF THE GUIDE(S)	NAME OF THE STUDENT(S)	AMOUNT SANCTIONED (Rs.)
70. H.K.B.K. COLLEGE OF ENGINEERING, BENGALURU							
538.	46S_BE_5423	REAL TIME PROJECT PROGRESS UPDATE OF BUILDING USING IOT	B.E.	CIVIL ENGINEERING	MRS RAJALAKSHMI M M MRS N R GOWRI	MANJUNATH.M.RATHOD MOHAMMED KASIM MOHAMMED KHALANDER SHARIFF SYED FOUZAN	5,000.00

KSCST: 46th Series of Student Project Programme (SPP): Sponsored Projects

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Sl. No.	PROPOSAL REFERENCE NO.	PROJECT TITLE	COURSE	BRANCH	NAME OF THE GUIDE(S)	NAME OF THE STUDENT(S)	AMOUNT SANCTIONED (Rs.)
539.	46S_BE_4187	SMART SHOE FOR VISUALLY IMPAIRED PEOPLE	B.E.	COMPUTER SCIENCE AND ENGINEERING	DR.DEEPAK N R VEERESH K M	NITHIK JOSEPH PARIKSHITH H B PAVAN SINDHE L RATHIK KUMAR	5,000.00
540.	46S_BE_4369	FAULT DETECTION AND PREDICTIVE MAINTENANCE OF INDUSTRIAL MACHINES USING MACHINE LEARNING	B.E.	COMPUTER SCIENCE AND ENGINEERING	SWAATHIE V	ANUSHA R CHETHAN S DEBRUP ROY ANISH KUMAR	5,000.00
541.	46S_BE_4565	OCULAR BASED WHEELCHAIR ACTUATOR SYSTEM FOR AMYOTROPHIC LATERAL SCLEROSIS(ALS) IMPAIRED PATIENTS	B.E.	COMPUTER SCIENCE AND ENGINEERING	DR. DEEPAK N R PROF. VEERESH K M	MOHAMMED SHADAB PASHA MD SAMAN MOHAMMED HUZAFI J MOHAMMED IMRAN K P	6,000.00
542.	46S_BE_5464	AUTOMATED INDOOR PLANT MANAGEMENT SYSTEM USING ARDUINO	B.E.	ELECTRONICS AND COMMUNICATION ENGINEERING	DR.SANJANA PRASAD	UMME HANIYA K MOHAMMED SULAIMAN MOHAMMED TAHIR SYEDA ZEENATHUNNISA	5,000.00
543.	46S_BE_0842	SOLIDER HEALTH MONITORING AND TRACKING SYSTEM USING IOT	B.E.	INFORMATION SCIENCE AND ENGINEERING	DR.V.BALAJIVIJAYAN PROF.SHARAVANA.K	MS.NAVYA R KATHI JOE DANIEL MONIKA G S VARSHITHA	5,000.00
544.	46S_BE_1288	SMART CAP FOR VISUALLY IMPAIRED PERSON USING RASPBERRYPI	B.E.	INFORMATION SCIENCE AND ENGINEERING	PROF.T.GODHANDARAMAN PROF. ASHWINI PATIL	AMEENA ARFA KHANUM AMREEN KHANUM FIZA FATHIMA SANIYA SAHAR	4,000.00
545.	46S_BE_2649	PREDICTION AND COMPUTATION OF FUTURE STOCK PRICE VALUE USING TIME SERIES	B.E.	INFORMATION SCIENCE AND ENGINEERING	PROF. SHARAVAN K DR. V. BALAJI VIJAYAN	SAUD ALI MOHAMMED ZAAFIR GOLTAY SHAHBAJ ALAM SOURAV PAL	4,000.00
546.	46S_BE_5350	AUTOMATIC MUSIC PLAYLIST LIBRARY RECOMMENDATION ALGORITHM BASED ON FACIAL MICRO-EXPRESSION RECOGNITION	B.E.	INFORMATION SCIENCE AND ENGINEERING	USMAN ALJAZ N BALAJI VIJAYAN	ARUNACHALA B U M HARSHITH MANIMARAN M VIGNESH T	4,000.00

KSCST: 46th Series of Student Project Programme (SPP): Sponsored Projects

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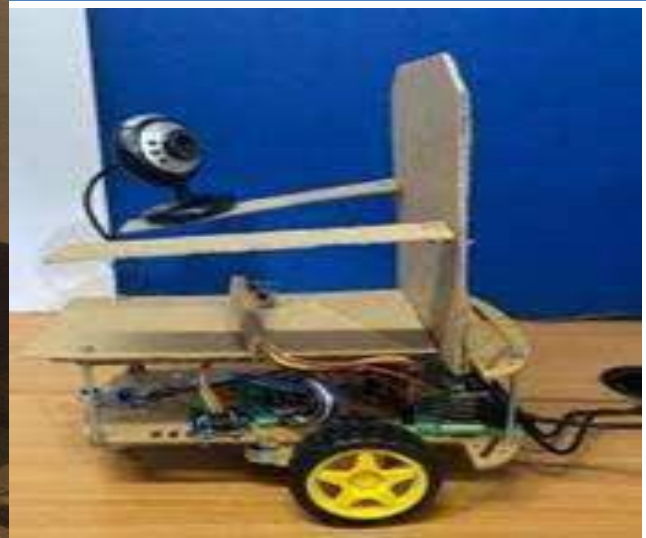
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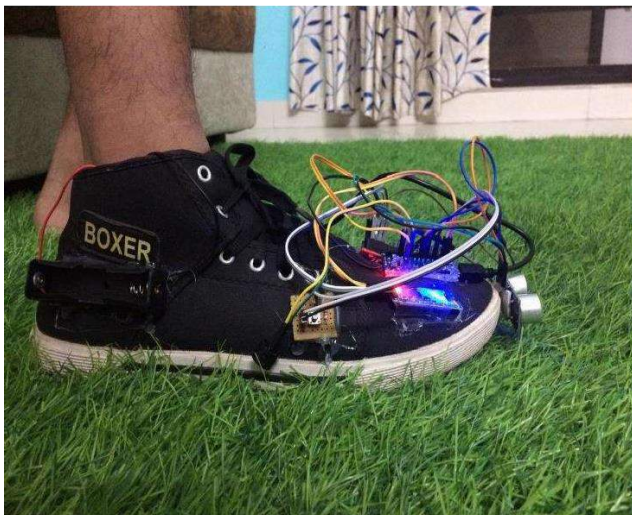
G. Highlights of few selected best Innovations & images with mention of inventor/Innovation name.



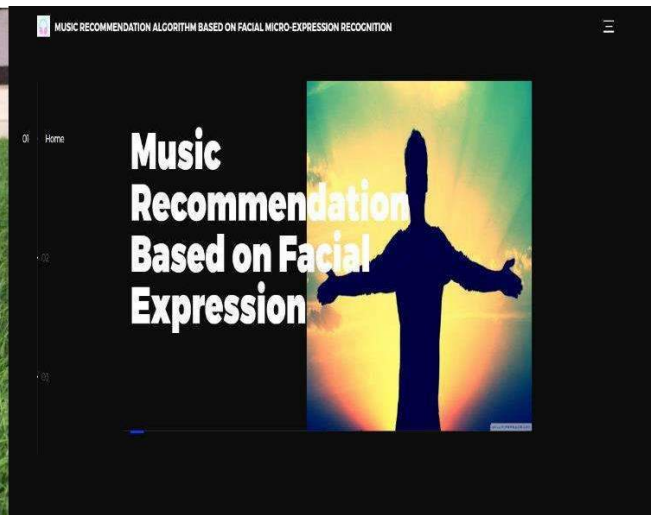
Innovation 1: Vacuum Flushing



Innovation 2: Ocular based Wheelchair Actuator System for Amyotrophic lateral Sclerosis impaired patients



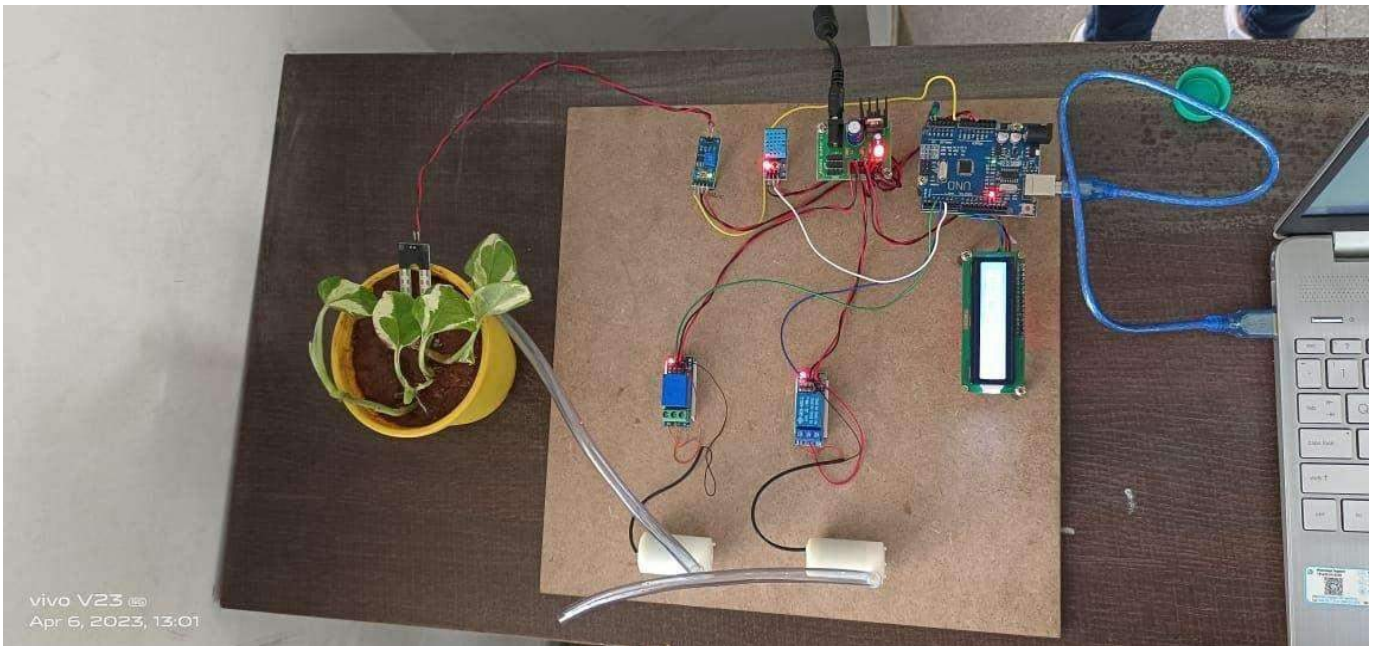
Innovation 3: Smart Shoe



Innovation 4: Automatic Music playlist Library Recommendation Algorithm Based on Facial Micro Expression

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Innovation 5: Automatic indoor Plant Health Management System using Arduino

Innovations & Innovators Name:

1. **Vaccum Flushing-** Mr. Mohammed Yousuf Kaleem
2. **Ocular based Wheelchair Actuator System for Amyotrophic late Sclerosis impaired patients-** Mr. Mohammed Shadab pasha and Team
3. **Smart Shoe for Visually Impaired people –** Mr. Nithik Joseph and Team
4. **Automatic Music playlist Library recommendation Algorithm based on Facial Micro Expression –** Mr. Manimaran and Team
5. **Automatic indoor Plant Health Management System using Arduino-** Mr. Mohammed Tahir and Team

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H. Highlights-Selected Start-ups established by students/Faculties with mention of founder/cofounder name

The following 6 Start-ups are at pre incubation Stage

1. Medicule
2. Step up
3. Recordi
4. Wine and Dine
5. Around the World
6. Moltrus

I. List of any break through Innovations/technology Developed at the Institute (2-3 Technology with 2-3 lines about Technology and Innovation)

Nil

J. Participation of IIC-Institute in various programs of Central and state Govt highlighting specially for the Schemes or Programs

- **ARIIA (NIRF Innovation)**-Participation and Rank- To be participated.
- **NISP Adoption Status-Trained Faculty, Policy Formulation, Policy Implementation**- The policy currently undergoing review. Ten faculty members have been trained to serve as Innovation Ambassadors. The National Innovation and Start-up Policy (NISP) will be registered and implemented within the IIC 6.
- **Smart India Hackathon** - Conducted an in-house Smart India Hackathon (SIH) for the 2022-2023 academic year on September 25, 2023.
- **ATL-IIC Mentorship Linkage Program**- To be carried out within IIC 6.

K. Details of Media, social media & Connection of IIC Institute

Instagram Link:

https://www.instagram.com/hkbk_iic

Facebook Link:

<https://www.facebook.com/profile.php?id=1000903919774>

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L. Images



Semester I offline Quarterly Meeting



Semester II Online Quarterly Meeting



Fig 1: VTU IDEA Lab Visit



Fig 2: Technical Institutes Meet by GTTC



Fig 3: Tech E Summit by BCC

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Fig 4: NTD Week Inauguration



Fig 5: Logo Design Day



Fig 6: Awareness Programme on I & E



Fig 7: GTTC Field Visit



Fig 8: Field Visit to Social Enterprise Mela by Azim Premji University



Fig 9: Bangalore Tech Summit Field Visit

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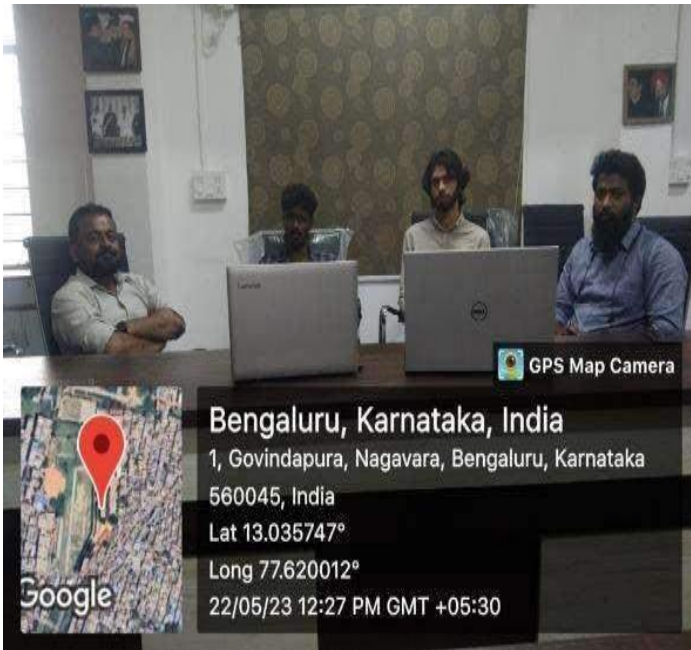


Fig 9: Mentoring Day



Fig 10: Signing of MoU with Principal Secretary Dr Selva Kumar, Govt of karnataka

M. Contact

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