



REPORT OF INITIATIVES TAKEN UNDER THE AEGIS OF INSTITUTION'S INNOVATION COUNCIL

(SEP 2022 to AUG 2023)

MCKV INSTITUTE OF ENGINEERING
(NAAC Accredited 'A' Grade Autonomous Institute)

243, G T Road North, Liluah, Howrah, West Bengal -711204

About the College

MCKV Institute of Engineering is one of the top engineering colleges in West Bengal established more than two decades ago (since 1999) with a vision to foster the spirit of technological learning and its application through creating the right kind of opportunity and ambience for educating young minds in the digital era. The Institute has been accredited by NAAC with an 'A' Grade, and it is an Autonomous Institute affiliated to MAKAUT, WB and approved by AICTE. It offers core and applied engineering programmes like: Mechanical Engineering, Electrical Engineering, Computer Science Engineering, Electronics and Communication Engineering, Information Technology and last but not the least a very niche stream that is Automobile Engineering, some of which are accredited by NBA. Besides, M. Tech in Electronics and Communication Engineering (with specialization in Communication) is being conducted to encourage students in higher studies for over 10 years.

With the confidence of her illustrious track record and with the support of autonomy, MCKVIE has stepped in to launch three new B. Tech courses viz. CSE (Data Science), EC (VLSI Design) and Artificial Intelligence & Machine Learning (AI&ML) along with a PG course in the field of Management, MBA (Business Analytics) where the curricula are designed to accommodate the trending need of the Industry.

The Institute is always committed to provide quality education to cater to the diversified needs of the industry and encourage research works as well for the society at large. Its State-of-the-art infrastructure, industry-academia collaborations, experienced senior faculty and rigorous hands-on training sessions, transform students into industry-ready professionals. For more than 20 years, MCKVIE has been known for its spirit of excellence that transforms students into intellectuals, where faculty works with the students to engineer solutions and encourage exploration across disciplines. Critical thinking and networking is the main focus – on campus, off campus and after graduation.

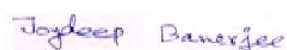
Institute Innovation's Council: Inspiring Ideas to Innovate & Change



The Ministry of Education with the vision of creating and promoting the culture of innovation amongst institutions of higher education has founded the MOE's Innovation Cell. As the Convener of Institute's Innovation Council (IIC), it has been my pleasure to witness the growth of IIC of MCKVIE. IIC has made all efforts to enhance the culture of innovation and entrepreneurship by organizing various activities like Motivational Journey of Innovators and Entrepreneurs.

The Institute's Innovation Cell (IIC) is actively instrumental in providing opportunities to students and faculty and to innovate and ideate through competitions like Idea Competition and Internal Software Hackathons. True to the spirit of MIC, the primary goal of IIC has been to empower minds and cultivate innovative ideas that can be useful to the society. The opportunities provided by MIC have been extremely enriching in enabling the students and faculty to ensure organic growth in terms of innovation.

I am indebted to Principal, Prof. Abhijit Lahiri, for his continuous encouragement and support. In addition, I express my sincere appreciation to all the faculty members and students other respected members of IIC associated with the council who have made this journey memorable and fruitful with their hard work. I hope that we can continue to inspire this zeal to innovate for the betterment of our society.



Dr. Joydeep Banerjee

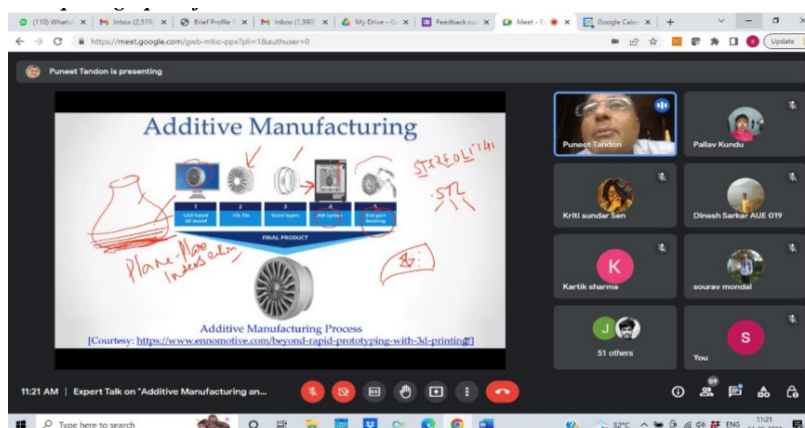
Convener, IIC, MCKVIE

**Reports of the program
organized by IIC, MCKVIE
*(Sep 22-Aug 23)***

EXPERT TALK ON ADDITIVE MANUFACTURING AND ITS APPLICATION IN AUTOMOTIVE TECHNOLOGY

Date: 24th September, 2022

Institution's Innovation Council of MCKV Institute of Engineering (MCKVIE) has conducted an expert talk in online mode on "Additive Manufacturing and its application in Automotive Technology" on 24th September 2022 from 11 AM - 12 PM. The Hon'ble Speaker of the session was Dr. Puneet Tandon, Professor of Mechanical Engineering, PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur (IIITDM Jabalpur). The event was organized for faculty members and students of the institute. More than 50 participants were present in the session. At the beginning of the session, Dr. Sudipto Chaki, IIC member of MCKVIE and coordinator of the event introduced Prof. Tandon to the participants. Prof Puneet Tandon indicated that in the era of industry 4.0 Additive manufacturing is gaining ample importance due to its certain advantages including minimal wastage of material, ease of customization in products, lesser cost of prototyping, and find wide applications in several fields including aerospace, automotive, machinery, medical implants, material handling, and robotics, lifestyles and sports equipment, etc. Additive manufacturing is an integral part of innovation as it is an effective means to transform an innovative idea into prototype development. During the session, Prof Tandon explained wonderfully the concepts of additive manufacturing, its basic steps, classification of different additive manufacturing techniques, its applications, challenges, and its importance prototype and product development. Prof Tandon detailed the basic steps of additive manufacturing such as geometric modeling, tessellation of the geometric models, slicing the models into layers, developing the product using additive manufacturing systems, and finishing the end product. Subsequently, he explained different methods of additive manufacturing such as stereo lithography, fused deposition modeling, powder bed fusion, sheet lamination, binder jetting, etc. The effective modification of the supply chain of products while using additive manufacturing methods has been discussed during the session. Further, he explained its application in different domains along with current innovative research trends where additive manufacturing is playing an important role in the cost-effective conversion of an innovative idea into prototype development. The session was interactive in nature. Finally, the session ended with a vote of thanks from IIC MCKVIE. The session remained a great source of knowledge for all the participants.



WORKSHOP ON ELECTRONIC CIRCUIT DESIGN

Date: 26th & 27th November, 2023

Workshop on “Electronic Circuit Design” has been executed successfully within the mentioned period under Institution’s Innovation Council, MCKVIE. Design and Implementation of Automatic LED Emergency Light was the target design objective. To organize the workshop an organizing committee was constituted involving following members: 1. Dr. Krishnendu Chattopadhyay (Program Coordinator) 2.Mr. Subhasish Banerjee 3.Mr Ajoy Ghosal 4. Mrs Sumita Bhattacharya. 5. Mr. Chandan Das 6. Mr. Udaybhanu Dutta 7. Mrs. Priyanka Nath 8. Mr. Arijit Sen (Service Engineer).

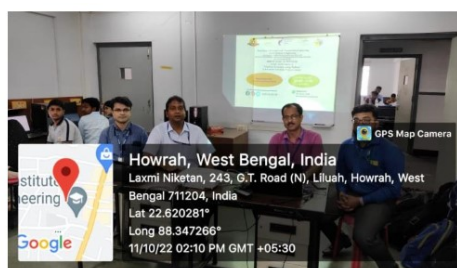
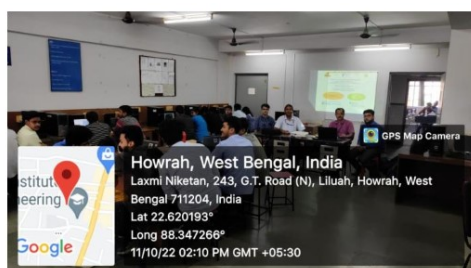
The very short inaugural session was followed by a technical session, where the particulars and design concept of the prototype was explained by the program coordinator. Thirty nine students of ECE Department participated in the workshop. The students of ECE department actively participated in the workshop to design, assemble and test the electronic circuits. All the resource persons from the organizing committee actively guided the students to make the event successful. All the students developed the Automatic LED Emergency Light and the prototype was presented to them also. This workshop will encourage students for innovative design and prototype development. There was an evaluation process at the end where all the students participated and done good performance.



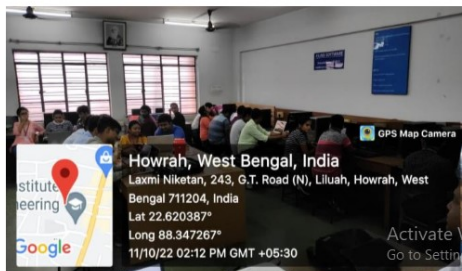
ONE DAY SEMINAR ON “MACHINE LEARNING USING PYTHON”

Date: 11th October, 2022

The Department of Electronics & Communication Engineering, MCKV Institute of Engineering had organized a one day seminar on “Machine Learning using Python” on 11th October, 2022. The event was held at MCKVIE jointly with ARDENT COMPUTECH PVT. LTD. and ECE department, MCKVIE. A total of thirty five students from ECE and EC-VLSI Design 5th semester participated in the program. The participants showed great enthusiasm and expressed their hope to participate in such events in years to come. This workshop enhances the problem-solving skill and innovative thinking of the participants. They appreciated the concept of the event as it provided them the platform to know the present.



event are given below.



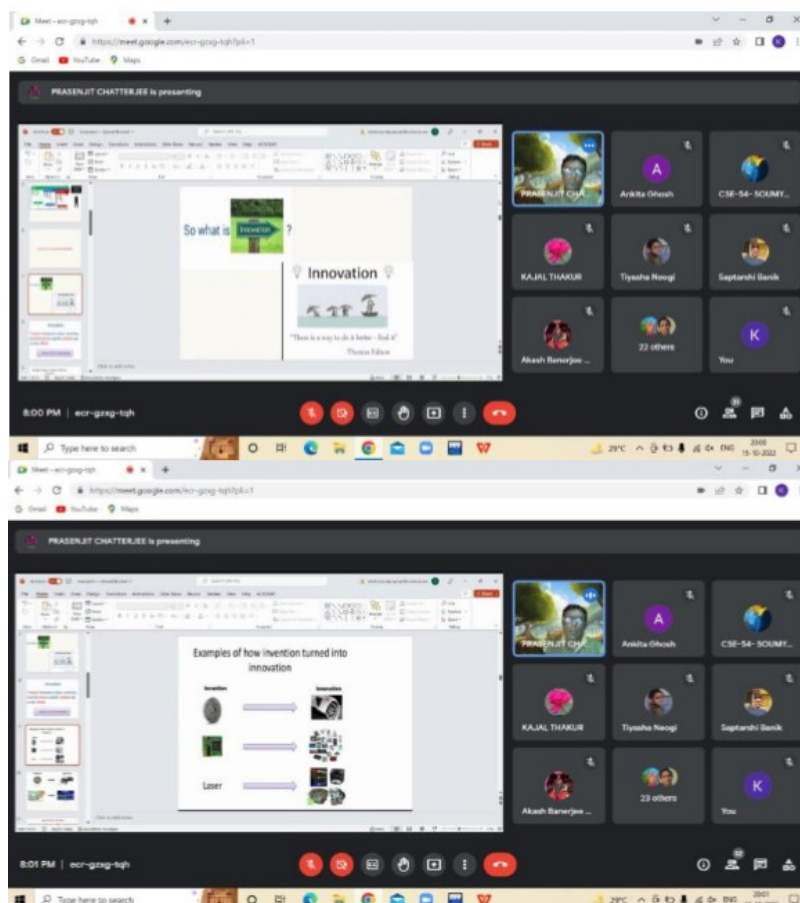
requirements of IT industry. Some photos of the

CELEBRATION OF NATIONAL INNOVATION DAY

Date: 15th October, 2022

IIC, MCKVIE celebrated National Innovation Day on 15th October 2022 to mark the birth anniversary of a great visionary and a dreamer of Innovative India, Dr A.P.J. Abdul Kalam. Institute Innovation Cell of MCKVIE and Rotaract Club of MCKVIE have jointly organized a webinar on the topic “Innovation: From the Eyes of an Engineer”.

Our speaker for the event was Prof. Dr. Prasenjit Chatterjee. He talked about the different perspectives of Innovation, relation between Invention and Innovation and also how Engineering and Innovation go hand in hand. He also answered many questions raised by the participants. It was a very interesting and enlightening session. 56 no of students along with many staff members attended the session.

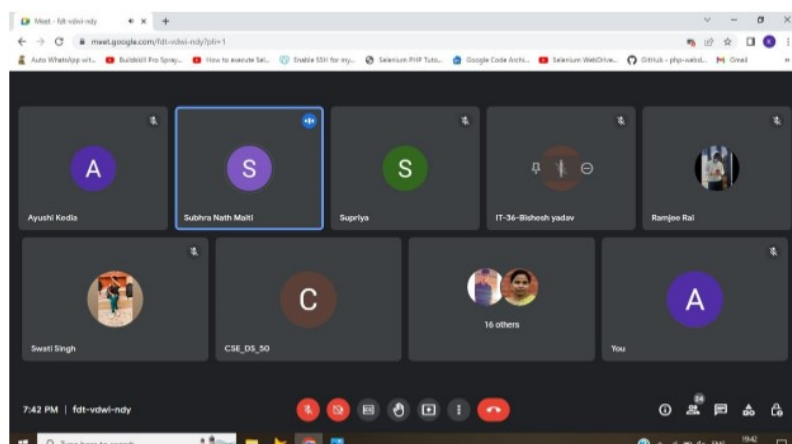
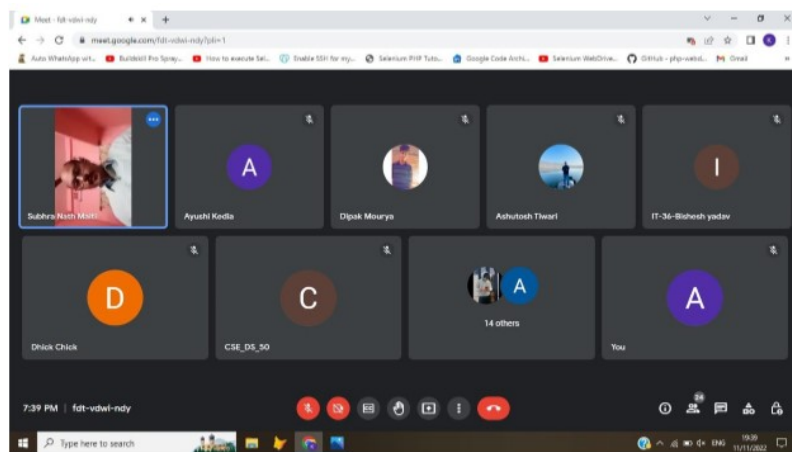


CELEBRATION OF NATIONAL EDUCATION DAY

Date: 11th November, 2022

IIC, MCKVIE celebrated National Education Day on 11th November 2022 to mark the birth anniversary of a journalist, politician, freedom fighter and educationist, Maulana Abul Kalam Azad University of technology. Rotaract Club of MCKVIE in association with Institute Innovation Cell of MCKVIE has jointly organized a webinar as an initiative to raise the aim to generate debate around how to strengthen education as a public endeavor and common good.

Our speaker for the event was Prof. Subhra Nath Maiti. He talked about education and growth of one's consciousness and education system and education policy in India. He enlighten about how after independence our country still following the British education system and gradually it is turning to a new education policy i.e NEP-2020. Around 56 students and staff members joined to the program to make it success.



MY STORY-MOTIVATIONAL SESSION BY SUCCESSFUL INNOVATORS

Date: 18th November, 2022

Institution's Innovation Council (IIC) of MCKVIE in collaboration with the The Start-Up club, MCKVIE organized “My Story-Motivational Session by Successful Innovators” on 18th November, 2022. This is an off-line event and approximately 45 participants (students and faculty members) attended on this event.

Md. Aman Ansari, Founder and CEO, Atomos Technologies (OPC) Pvt. Ltd. and Founder and CEO, Cifer, enlightened students with his journeys and experiences as entrepreneurs. He said the students through his academic journey right up to his first digital marketing job. He shared his experiences, emphasising on the fact that everything is a repercussion of our decisions and it is in our hands to change our future. He also shared his inspiring journey of being a door-to-door salesperson. He highlighted the luxury and freedom that comes with being your own boss and also the responsibility. He encouraged the students to make a plan for their future and then stick to it. He advised on learning outside the classroom with interdisciplinary subjects and to re-skill yourself constantly to grow personally and professionally. He said to students that ‘you have to take the first step and make things work in your favour’. At the end of the session, the students enthusiastically took part in this talk and even had an informative interaction about the future of IT and core industry and opportunities in the marketing sector.



ENTREPRENEURSHIP AWARENESS PROGRAM

Date: 23rd November, 2022

Institution's Innovation Council (IIC) of MCKVIE in collaboration with Green Bengal Innovation Network (GBIN) present an "Entrepreneurship Awareness Program" on 23rd November (Wednesday), 2022 at MCKVIE. GBIN is a joint initiative of SwitchON Foundation & Network for Global Innovation (NGIN) supported by Government of West Bengal for fostering Green Entrepreneurship in West Bengal. It is an initiative to encourage youth to set up green businesses. The objective is to encourage the budding entrepreneurs to enthusiastically embrace the StartUp and innovation culture, as extensively portrayed by the speakers. The awareness program had two parts: (1) Definition of green entrepreneurship, benefits and role of GBIN; (2) Story telling by a green entrepreneur from the state to motivate the students.

From this program, participants obtain the following learning/Skill/Knowledge: 1) Various objective of GBIN like (a) entrepreneurial culture towards a green economy in the state; (b) the support they provide for the creation and growth of green sustainable companies and availability of investment funding for start-ups. 2) They know about the upcoming "Green Bengal Innovation Contest" by Department of Power, Government of West Bengal. 3) The detail discussion by Ms. Sujata Chatterjee(founder of Twirl.store) has helped the audience to understand the opportunity of green entrepreneur.

Institution's Innovation Council (IIC) of MCKVIE in collaboration with Green Bengal Innovation Network (GBIN) present an "Entrepreneurship Awareness Program" on 23rd November (Wednesday), 2022 at Room No B312. This is an offline event and approximately 40 participants (students and faculty members) have attended on this event. GBIN is a joint initiative of Switch ON Foundation & Network for Global Innovation (NGIN) and is supported by Government of West Bengal for fostering Green Entrepreneurship in West Bengal. It is an initiative to encourage youth to set up green businesses. The objective is to encourage the budding entrepreneurs to enthusiastically embrace the Start Up and innovation culture, as extensively portrayed by the speakers. The awareness program had two parts: (1) Definition of green entrepreneurship, benefits and role of GBIN; (2) Story telling by a green entrepreneur from the state to motivate the students.

The session was started by welcome address of Prof. Abhijit Lahiri, Principal, MCKV Institute of Engineering, followed by Mr. Archan Deb, representation of GBIN and then followed by Ms. Sujata Chatterjee founder of Twirl.store. Mr. Archan Deb, pointed out the role of GBIN viz. (1) To encourage an entrepreneurial culture towards a green economy in the state; (2) To support the creation and growth of green sustainable companies; (3) To increasing availability of investment funding for start-ups. He also point out that GBIN is coming up with "Green Bengal Innovation Contest" and they are very keen that the students of MCKVIE who aspire to be green

entrepreneurs receive a fair opportunity to actively participate at the contest followed by recognition and rewards. He also pointed out how to apply it.

Then session was chaired by Sujata Chatterjee founder of Twirl.store. It was a highly motivational talk and the topic was "Story telling by a green entrepreneur from the state". The detailed discussion helped them understand the opportunity of green entrepreneur during their B.Tech studies. By her unique idea of Twirl.store; she has been able to reduce wastage, conserve natural resources, provide basic clothing to thousands of needy people, and ensure livelihoods for rural women too. For efforts towards sustainability, Twirl.store founder has received the "Devi Award" from the hands of Mrs.Smriti Irani, Union Minister and a special felicitation from Mrs. Chandrima Bhattacharya, MOS, Govt of West Bengal. She is also proud winner of "Swayam Sidha" award by Eastern Chamber of Commerce and "Rising Women Entrepreneur" by Indian Chamber of Commerce. She has received "Women on a Mission" award by Your Story and been chosen as "Industry Disruptor" by UNWomen and DO School, Berlin. In recent times she has been highlighted as a women entrepreneur by UN India, UN Women Asia-Pacific and UN ESCAP. Then the event was ended by vote of thanks.

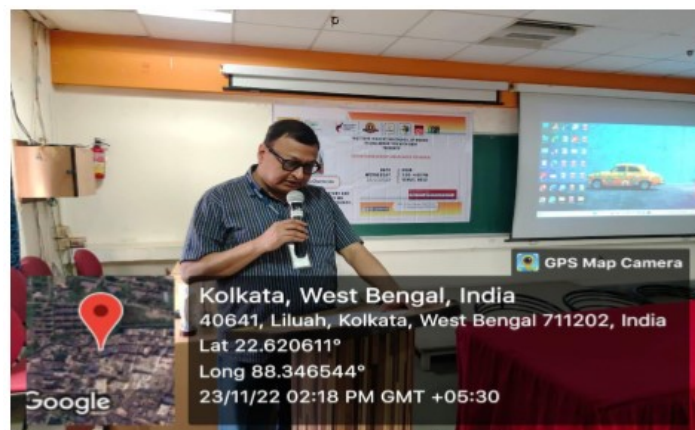
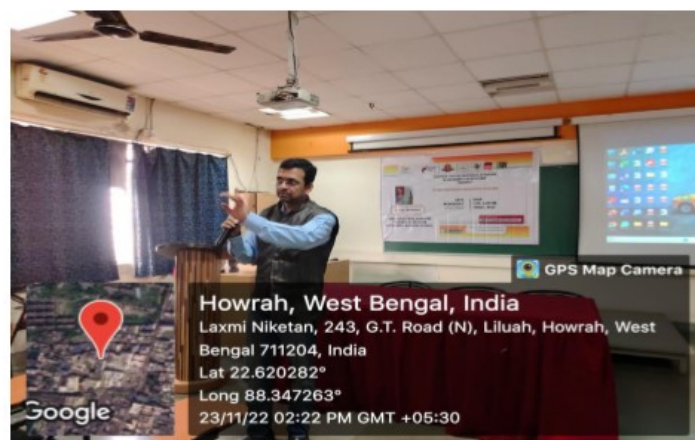


Fig: Welcome address by Prof. Abhijit Lahiri



TRACE.IT EVENT

Date: 25th November, 2022

Trace.IT 2K22 was the first iteration of a yearly technical event organized by the students and faculty members of the IT Department of MCKV Institute of Engineering, held on 25th November, 2022 at IT Department of MCKV Institute of Engineering from 9:30 a.m. onwards. Students of all departments from MCKV Institute of Engineering were competing in teams of two members to prove their knowledge and skills. There were 152 teams have registered for the event. Objectives of the event: To improve the speed, accuracy and efficiency of participants in solving challenging programming statements.

The event comprises of 3 rounds as follows:

Round 1: Trivia Round 1 is basically an elimination round. All registered participants have appeared for this round. There are 30 multiple choice questions in this round and need to be answered within 30 minutes. The question paper consists of coding and decoding, aptitude, general knowledge, science and technology, riddles and c programming skills. 20 teams were selected for the second round based on the performance of the 1st round.

Round 2: Crack-a-code the 2nd round of this event was crack a code. The top 20 participating teams who qualified in the 1st round were eligible to appear for this round. In this round the participants need to solve two real life problems which were saved in two different files in their assigned PC. The names of the file where the problem statements are saved are hidden inside two puzzles. Participants need to solve the puzzles to get the file names. After that they need to search for the files. After opening the file participants will get their assigned problem statement. Then they need to solve it by using any programming language to get the desired output. Test cases are assigned for both the problem. Top 5 teams were selected for the 3rd and final round based on the performance of the second round.

Round 3: Incognito the 3rd round was a blind coding round named as Incognito. In this round participants need to solve two real life problems through blind coding. Student members of the organizing committee have developed a platform where the participants can write their code but the coding is not visible to them. A blank screen will appear in front of the participants. After coding they executed it without seeing the code and their performance was evaluated based on the output.

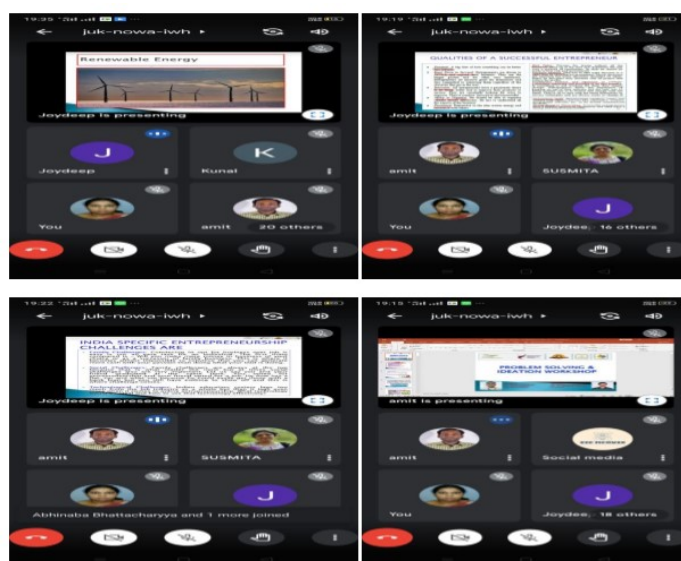
Outcome of the Event: It helps to gain the confidence of the participants over coding and programming for solving a new real life problem. These problem solving skills also help to develop more skills in a person and build a promising career in future.

PROBLEM SOLVING & IDEATION WORKSHOP

Date: 26th November, 2022

Institution's Innovation Council (IIC) of MCKVIE organized “PROBLEM SOLVING & IDEATION WORKSHOP” on 26th November (Saturday), 2022. This is an online event and approximately 25 participants (students and faculty members) attended on this event. Dr. Amit Phadikar, Professor of IT Department & Vice-President IIC-MCKVIE and Dr. Joydeep Banerjee, Assistant Professor of ECE Department & Convener IIC-MCKVIE lectured in the event as joint speakers. Professor Phadikar started the discussion about different aspects of Entrepreneurship. He enlightened the students and faculties about importance of entrepreneurship and start-up. He focused on several topics like types of entrepreneurs, qualities of successful entrepreneur. He also discussed the different functions of an entrepreneur, the role of entrepreneur in our economy and society, challenges of entrepreneur. His session encouraged students about the opportunities of entrepreneurship. He also discussed about the activities of MCKVIE regarding entrepreneurship and the support of the government to promote the growth of entrepreneurship.

Then, Dr. Banerjee discussed about different aspects of ideation and problem-solving. He has discussed about different techniques of ideation and problem solving. He discussed about different topics like importance of innovation and idea generation, importance of problem solving, importance of creative thinking, and strategic thinking. He focused about importance of identification problem and different techniques of problem solving. The workshop was very exhaustive, and students got awareness about diverse opportunities available in this field. In nutshell, through this workshop, students were exposed and were encouraged to generate and execute their own ideas to improve problem-solving skill and entrepreneurship skill.



WORKSHOP ON “ENTREPRENEURSHIP AND INNOVATION” AS CAREER OPPORTUNITY

Date: 28th November, 2022

The workshop on “Entrepreneurship and Innovation” as Career Opportunity- was organized by Institution Innovation Council in collaboration with Institute of Engineers (India) on 28th November, 2022 from 2:30 pm – 4 pm in B-312, MCKV Institute of Engineering and our guest speakers delivered the lecture with hybrid mode (i.e. physical mode and online mode). Mr. Sourav Ghosh (B.E. - IT, M. Tech- Nano Science & Technology) is a Serial Entrepreneur delivered the lecture with physical mode from 2:30 pm in our college campus and his Domains are IT, Education, Construction and he is a member of several Trustee-Board & Partner and also associated with multiple companies. Prashant Singh, Founder and Managing Director @ Uxli Ltd, delivered the lecture with online mode along with Mr. Sourav Ghosh.

They enlightened students with their journeys and experiences as entrepreneurs. Mr. Sourav Ghosh took the students through his academic journey right up to his first job in Reliance Communication. They shared his experience, emphasizing on the fact that everything is a repercussion of our calculated risk taking decisions and it is in our hands to change our future. He enlightened the students about ideation process, the importance of teamwork. He focused on several topics Data Analytics, Management, Machine Learning, and Intelligent Transportation Systems .The students enthusiastically took part in this talk and even had an informative interaction with the guests about the future of IT industry and opportunities in marketing sector, at the end of the session.

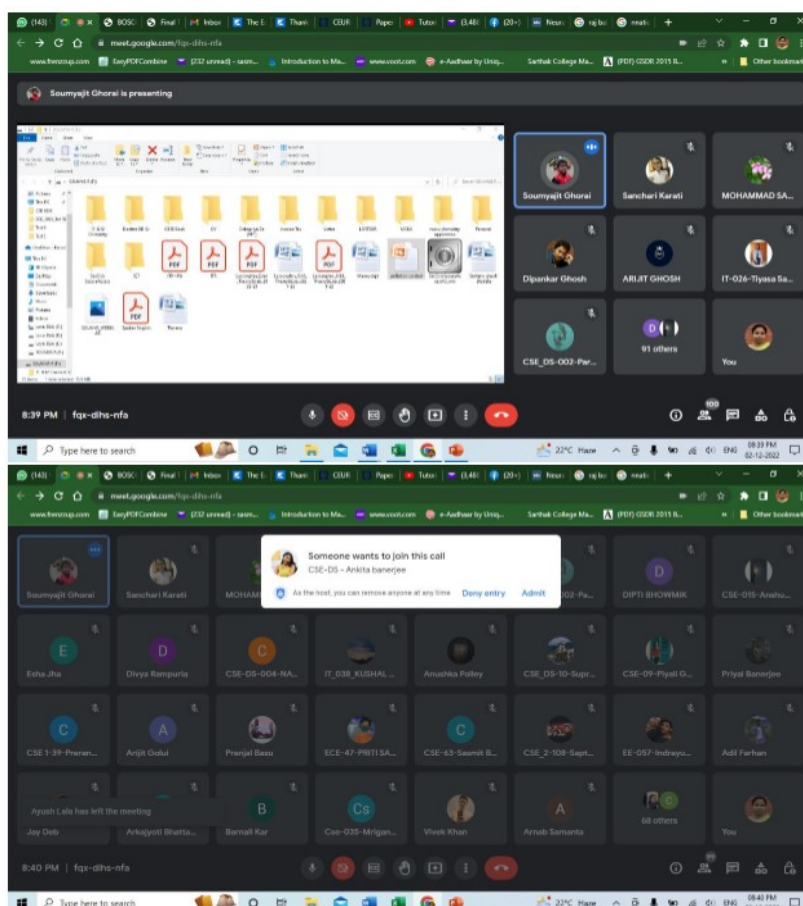


CELEBRATION OF NATIONAL POLLUTION CONTROL DAY

Date: 2nd December, 2022

IIC, MCKVIE celebrated National Pollution Control Day on 2nd December, 2022 to mark the honored those who died in the Bhopal Gas catastrophe on December 2nd and 3rd in 1984. It is observed on 2nd December to spread awareness about the problem caused by increasing pollution. Institute Innovation Council of MCKVIE in association with Rotaract Club of MCKVIE has jointly organized a webinar.

Our speaker for the event was Prof. Soumyajit Ghadei, of Basic Science Department, MCKVIE. He talked about the different types of pollution, its causes and necessary steps for its control measure. It was a very interesting and enlightening session. 126 no of students along with many staff members attended the session.



INNOVATIVE IDEA, INNOVATIVE MODEL, AND TECHNICAL POSTER PRESENTATION COMPETITION

Date: 16th January, 2023

PRAGATI 2023 the annual technical festival of MCKV institute of Engineering has been successfully conducted this year from 16th -17th Jan 2023 at institute premises. The opening ceremony was graced by Prof. Debasis De, Professor, Computer science and Engineering Department, MAKAUT, as chief guest. This event was especially focused to inculcate students' innovative minds toward the conceptualizing of creative ideas and subsequent prototype development. The event included with Innovative idea contest, an Innovative model Contest, and a technical poster presentation competition. Those events were held at MCKV Institute of Engineering, Liluah, Howrah, under the sponsorship of IET (UK) Kolkata Local Network and MCKVIE. Altogether 119 students participated in those events among around 125 registered students from MCKVIE and different colleges in and around Kolkata. The event-wise report is provided subsequently.

Event Name: Innovative Idea contest

Sponsored by: IET (UK, Kolkata Local Network, MCKVIE)

Date: 16th January 2023, 11:00am onwards

No. of ideas presented: 14

No. of Participants: 44

No. of Committee members:10

MCKV Institute of Engineering organized an Innovative Idea Contest on 16th January 2023. The event was held at MCKV Institute of Engineering, Liluah, Howrah, under the sponsorship of IET (UK) Kolkata Local Network and MCKVIE. Fourteen innovative ideas in various domains of Engineering were presented and a total of forty four participants from various engineering colleges participated in the program. The presented ideas were evaluated on the basis of different criteria by the judges, viz. Dr. Jyoti Sekhar Banerjee, Secretary CSI, and HOD in Computer Science and Engineering (AI & ML) Dept., at Bengal Institute of Technology, Kolkata, India, and Dr. Debabrata Dutta former nuclear scientist at BARC and at present joint research director at Heritage Institute of Technology Kolkata and adjunct faculty at MCKV Institute of Engineering, Kolkata. Innovative ideas presented by the students were highly appreciated by judges and finally, first three models have been awarded with both cash prize and token of appreciation from MCKVIE. Dr. Pubali Mukherjee and Dr. Tanmoy Roychowdhury were the co-ordinator of the event. The list of participants, and sample photographs are given below.

Event Name: Innovative Model Presentation

Sponsored by: IET (UK, Kolkata Local Network, MCKVIE)

Date: 16th January 2023, 11.00am onwards

No. of models presented: 10

No. of Participants: 48

No. of Committee members: 8

MCKV Institute of Engineering organized an Innovative model presentation on 16th January 2023. The event was held at MCKV Institute of Engineering, Liluah, Howrah, under the sponsorship of IET (UK) Kolkata Local Network and MCKVIE. Sixteen innovative models in various domains of Engineering were presented and a total of forty eight participants from various engineering colleges participated in the program. Initially, a list of domains based on the recent thrust area of research and innovation were provided to participants and based on that sixteen models were presented by participants. During demonstration basic Principle and theory, mathematical formulation, simulation basics, flowchart, diagrams etc has been explained to the judges aided with a PowerPoint presentation. The judgment has been done by Mr Snehasis Banerjee, Lead research Scientist, Cognitive Research Group, TCS Research, Kolkata, Dr. Debopriya Dey, Professor, Basic science Department, MCKV Institute of Engineering and Dr. Satadal Saha, Professor, Electronics and Communication Engineering Dept, MCKV Institute of Engineering. Based on their judgment first three models have been awarded with both cash prize and token of appreciation from MCKVIE. However a special appreciation has been suggested by the jury which has been awarded with only a token of appreciation from MCKVIE. Dr. Debopama Kar Roy Basak, Dr Suchismita Ghosh and Mr Sudeep Samanta were the coordinator of the event. The list of participants, and sample photographs are given below.

Event Name: Technical Poster Presentation Competition

Sponsored by: IET (UK, Kolkata Local Network, MCKVIE)

Date: 17th January 2023, 10.00am onwards

No. of posters presented: 10

No. of Participants: 27

No. of Committee members: 8

MCKVIE, West Bengal has organized an Inter-Institutional Poster Presentation Competition under the umbrella of flagship activity, PRAGATI2022 in offline mode on 17 th January, 2023. The poster Presentation Competition was conducted under the sponsorship of IET (UK) Kolkata Local Network and MCKVIE. A total of 10 teams participated in the competition. The whole event was conducted with great zeal and enthusiasm. Every team came out with new creativity and ideas. It was a proper blend of technologies and their consequences. The event continued for two and a half hours and Prof. (Dr.) Santanu Ghorai, Professor, Applied Electronics & Instrumentation Engineering, Heritage Institute of Technology, Kolkata, and Prof. (Dr.) Amit Phadikar and Professor MCKVIE were

invited for judgment. Organizers thanked them for their presence which boosted all the teams and everyone participated with great energy. They judged all the teams on different criteria such as Creativity, Demonstration, and organization of the poster. Finally, first three models have been awarded with both cash prize and token of appreciation from MCKVIE. Dr. Shampa Sengupta of MCKVIE was the co-ordinator of that event. The list of participants, and sample photographs are given below.

However, in all the events Certificates of participation (e-certificates) were awarded to all participants. MCKV Institute of Engineering organized such inter-college innovation contests for the first time this year. The spontaneous responses received from the students and the appreciable quality of the ideas and models presented in the events have raised hope about a bright future for IPR-related activities. The participants also showed great enthusiasm and expressed their hope to participate in such events in future. Therefore, we are expecting more enhanced participation in the forthcoming years with new concepts and prototypes. The organizing committee is thankful to all the sponsors for their active support and cooperation and hopes to receive such help in the coming years.

Inauguration ceremony



Innovative Idea contest



Innovative Model Presentation



LEADERSHIP TALK UNDER MIC DRIVEN ACTIVITY

Date: 30th January, 2022

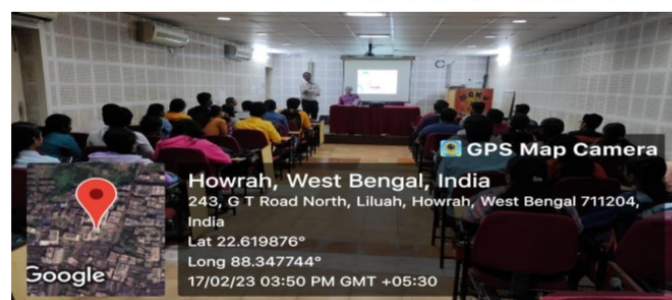
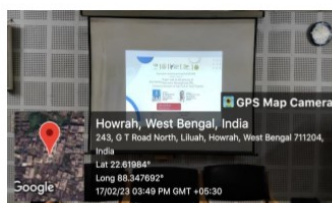
On 30.01.2023 from 11:00 AM onwards MIC's Leadership Talk with Chairman AICTE, Prof. T.G. Sitharam organized on Research and Innovation of India in 2047, Stress management, Private institutions to be IITs. Prof. T. G. Sitharam, the new dynamic Chairman of AICTE, is a civil engineer, professor at IISc Bangalore (on lien), director at IIT Guwahati, and director (Additional charge) at CIT Kokrajhar. In today's interactive and informative session with Dr. Abhay Jere, Chief Innovation Officer, MoE, Prof. Sitharam has mainly focused on the "Research & Innovation". He has pointed the research to be very critical of higher education system as well as country's growth. As per the clarion call by the Honorable Prime Minister, Mr. Narendra Modi that India should be developed country by 2047, the AICTE institutions are going to play a very crucial role. For fulfilling this vision of 2047, the engineering institutes needs to augment the activities of research apart from the placement. After that, as questioned by Dr. Jere regarding the stress management of young generation, Prof. Sitharam has enlightened on Yoga & Meditation. Along with all these things, Prof. Sitharam has also mentioned that the private institutions will be in the same line of IITs, if they focus on the research and from which innovations will come, and India will become a 'viswa guru'.



PROCESS OF INNOVATION DEVELOPMENT AND TECHNOLOGY READINESS LEVEL (TRL) & COMMERCIALIZATION OF LAB TECHNOLOGIES & TECH-TRANSFER

Date: 17th February, 2023

Institution's Innovation Council (IIC) of MCKVIE organized Expert Talk on “Process of Innovation Development and Technology Readiness Level (TRL) & Commercialization of Lab Technologies & Tech-Transfer” on 17th February (Friday), 2023. This is an offline event and approximately 45 participants (students and faculty members) attended on this event. Dr. Rajarshi Sanyal, Asst. Professor of ECE Department & Coordinator-YUKTI, IIC, MCKVIE and Mr. Partha Pratim Saha, Assistant Professor of CSE Department & Co-Coordinator YUKTI, IIC, MCKVIE have delivered their expert talk. Dr Rajarshi Sanyal, presented the taxonomy of Technology Transfer. In this regard, Dr. Sanyal has discussed elaborately about the roadmap to achieve the commercialized product of the submitted ideas/POCs through the aforesaid methodology. The prime feature of his lecture focuses on the significant issues of YUKTI as initiated by MIC, Govt. of India and assessment procedure of the submitted ideas/POCs. Besides, financial sponsorship process regarding the incubation in order to realize the commercially viable product has been discussed which may lead towards the future entrepreneur. Subsequent phase of the discussion by Mr. Partha Pratim Saha commenced nailing towards the various steps of Technological Readiness Level(TRL) starting from Idea submission to commercialized evolution of the final product. Further, long-term and short-term sustainability of the finished product for real time application have also been discussed. Finally a relation has been mapped between the TRL and Technology Transfer which ensures the cross-domain product development. This expert talk has encouraged the participants to generate and contribute their ideas/POCs to obtain the ultimate goal of technology transfer.



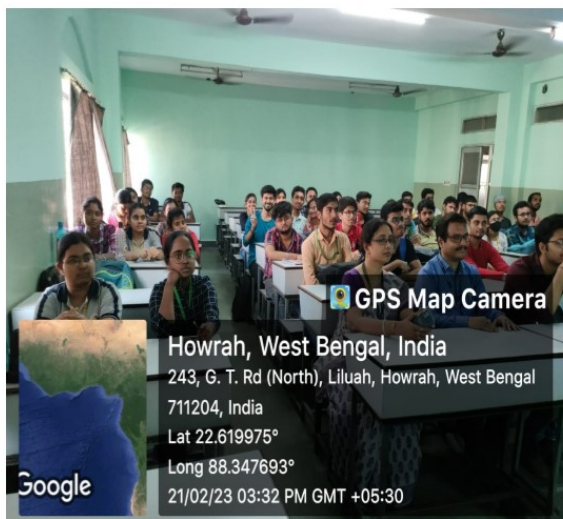
ACHIEVING PROBLEM-SOLUTION FIT & PRODUCT-MARKET FIT

Date: 21st February, 2023

Institution Innovation Council (IIC) of MCKV Institute of Engineering organized a session on “Achieving Problem-Solution Fit & Product-Market Fit” on 21st February, 2023 at 3:30 pm. The speaker Mrs. Jayanti Mahata, Assistant professor, Department of Information Technology, MCKV Institute of Engineering has discussed how to create a problem solution fit by a good design concept and also mentioned make a product market fit by understanding the market need by analyzing the feedback from the target group of people.

The objectives of the session are problem-solution fit about testing of ideas and validating them on the other hand Product-Market Fit is about market research and validation. The main objective of this session is to familiar the students how to become a successful entrepreneur by achieving problem solution fit and product-market fit. Because the key point to become a successful entrepreneur to be sure that customers will buy the product.

Benefit in terms of Learning/ Skill/ Knowledge obtained: Achieving problem-solution fit and product-market fit is the main goal to a successful business. Problem solution fit gives the appropriate solution for an idea so that when the solution becomes a product, the people are willing to pay for it. Product-market fit, means being in a good market with a product that can satisfy that market. After attending the session the participants gained knowledge about achieving problem-solution fit and product market fit.



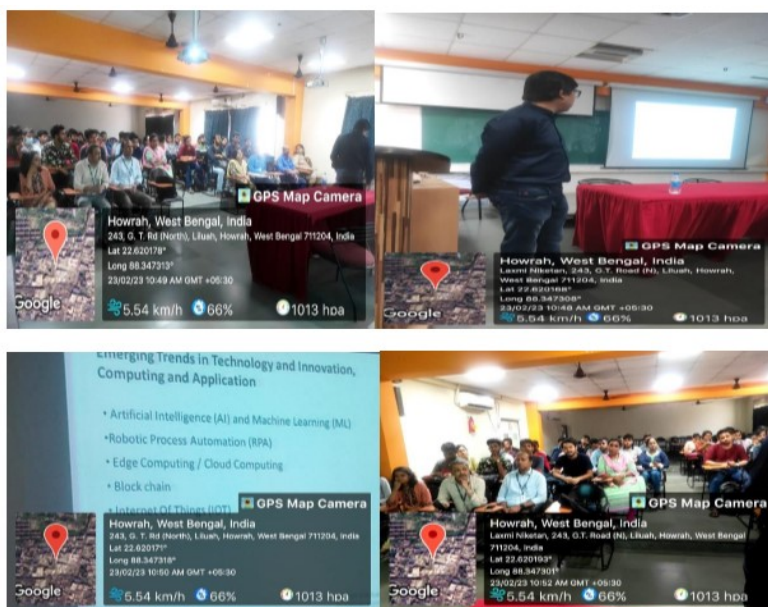
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SYMPOSIUM ON EMERGING TRENDS IN INNOVATION, COMPUTING AND APPLICATION AS CAREER OPPORTUNITY

Date: 23rd February, 2023

The IT Department of MCKVIE in collaboration with Institution's Innovation Council (IIC) of MCKVIE organized “Symposium on Emerging Trends in Innovation, Computing and Application” as Career Opportunity on 23rd February (Thursday), 2023. This is an offline seminar and approximately 54 participants (students and faculty members) attended in this Seminar. This seminar was held on the Room No. B312 (Seminar hall at MCKVIE). The duration of the event was 1 hour 30 minutes (from 11 am to 12:30 pm). The Speaker of the seminar was Mr. Sujoy Roy Chowdhury, Sr. Technical Architect of LTI Mindtree.

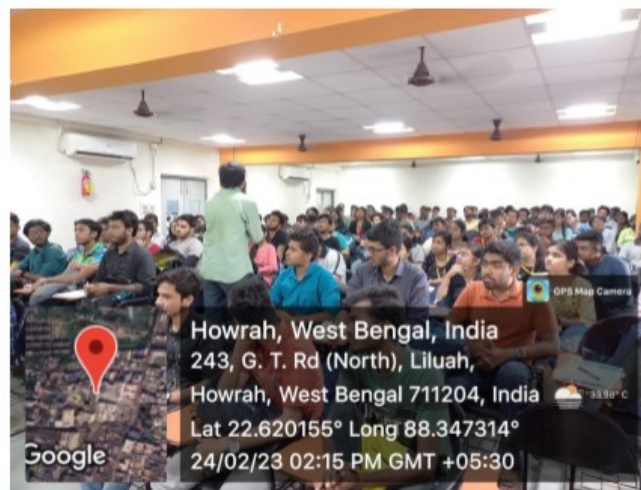
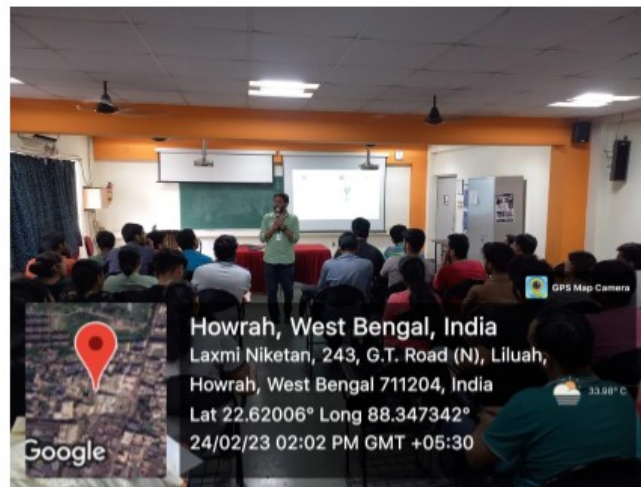
After the welcoming message of HOD IT Sir, the speaker started the discussion about different emerging areas of IT which tends to innovation, computing and applications. He enlightened the students and faculties about importance of emerging areas for innovation. He focused on several topics like Artificial Intelligence & Machine Learning (AI-ML), Robot Process Automation (RPA), edge computing/ cloud computing, block chain and IoT (Internet of Things). His session encouraged students about the opportunities of emerging trends. He also discussed about the real-life activities of those areas in IT industry. He also encouraged the IT students to work with real-life project of those areas as internship.



WORKSHOP ON "DESIGN THINKING, CRITICAL THINKING, AND INNOVATION DESIGN"

Date: 24th February, 2023

Institution's Innovation Council of MCKV Institute of Engineering (MCKVIE) has conducted a workshop in offline mode on "Design Thinking, Critical thinking, and Innovation Design" on 24th February 2023 from 02:00 PM – 04:00 PM at Seminar Hall (Room No B312) of the institute. The speaker of the session was Dr. Tanmoy Roy Chowdhury, Assistant Professor of Basic Science Department, MCKV Institute of Engineering. The event was organized for faculty members and students of the institute. More than 110 participants were present in the session. At the beginning of the session, Dr. Sudipto Chaki, IIC member of MCKVIE and coordinator of the event welcome the speaker and briefly articulated the concept and need of the design thinking in front of the participants. Dr. Tanmoy Roy Chowdhury further elaborated the concept through number of illustrative examples of popular products. He indicated the nonlinear, and iterative nature of the design thinking process where end users at kept at the centre of product development process. It enables designers to understand the actual need of the end users and further product development is based on the resolution of problem or challenges faced by the end users. He described the basic steps of design thinking process such as Empathies, Define, ideate, prototype and create with suitable examples. Further, he took a practical problem of developing a website for students that will reflects an individual's academic performance, career aspiration, and development of required skill set, overall progression towards career accomplishment, and several other aspects. A group of students acted as end users and explained their thoughts and feeling in this regard. It has been noted down. Based on that other groups defined the problem leading to ideation phase of the proposed website. Further possible development of the prototype and creation stage has been discussed by speaker. The concept of critical thinking has been also elaborated during discussion. The session was completely interactive in nature with spontaneous participation from the students in activities planned during session. The session was truly enjoyable for the students and they understood the basic steps of design thinking through active participation in solving a real-life problem. Finally, the session ended with a vote of thanks from IIC MCKVIE. The session remained a great source of knowledge for all the participants.



CELEBRATION OF NATIONAL SCIENCE DAY

Date: 25th February, 2023

IIC, MCKVIE celebrated National Science Day on 25th February 2023 to mark the discovery of the Raman Effect by Dr. C.V. Raman for which he won the Nobel prize in Physics.

Rotaract Club of MCKVIE in association with Institute Innovation Council of MCKVIE has jointly organized a Seminar as an initiative to raise the importance of science which is closely related with technology. Our speaker for the event was Prof. Mojammel Rahaman. He talked about physics and the contribution of C.V.Raman in the society. This year's theme is "Global science for Global wellbeing" around 47 students and 11 staff members joined to the program to make it success.



PAVING WAY TO INNOVATION

Date: 4th to 5th April, 2023

The Basic Science department of MCKVIE organized an workshop on “Paving way to Innovation” on 4th and 5th April, 2023 at B 312. All first-year students were mandatorily supposed to attend the program. The workshop was a huge success. The workshop was conducted in four sessions. The introductory speeches for each session were delivered by Dr. Arghya Sarkar, Dean of Academics, Our very own Dr. A.K. Jalan, The Dean of Students Affairs, Dr. Abhijit Lahiri, our Principal Sir and Dr. Dipankar Ghosh, our respected HOD Sir. The seeds of innovation have been planted among 400 first year students through lectures, presentations and hands-on activities. The meaning of innovation and the paths that can be followed to develop an innovative mindset have been inculcated in the simplest manner through discussions citing various examples by our keynote speakers, Prof. Debapriya De and Dr. Abhijit Pramanik. The endeavour of the speakers to deal with the subject in a simplified yet effective manner was highly appreciated by the audience. The distinguished speakers touched upon the fact that changing needs of the human society in day-to-day life as the driver of innovation. Similarly continuous upgradation was also highlighted as the very pertinent field of innovation. A thorough walkthrough of the workshop has been summarized below.

Not so long time ago, when it was more common for people to live in big houses and spacious villas, they used normal double bed cot. A normal double bed cot takes a lot of space, then with urbanization overtaking the society living in apartments has been more habitual, which generally has a very little space to fit in a double bed cot inside. That was the need for innovation of sofa cum bed. Earlier it was the pull-out style and now it has become a drawer system. One major problem of nowadays has been air pollution. Mr. Ayush Jha was the person who innovated air purifier with filter. Another big problem to deal with is mosquito. To get rid of this problem solar mosquito destroyer was innovated. These are all need based innovations.

If we now look into e commerce sector, companies like Amazon, Flipkart these were nothing but innovation based on human need. Specially during pandemic time and lockdown people really took advantage of these innovations. Home-deliveries through e-commerce even kept the society functional and saved it from breaking down completely. Not only physical products, motivational speakers like Mr. Gour Gopal Das, Mr. Aditya Maheshwari, Dr. Vivek Bindra they have made words sellable, soft skills became soft products. This is also an example of need-based innovation, and the idea was developed to reduce mental stress in human beings. On demands CAB facilities like Ola and Uber are also need based innovations. Discussions were made citing example of soft drink company Coca-Cola which evolved continuously according to the needs of the customers and at present it offers sugar free diet cola, which is really selling high right now. Innovation is not invention. There is a slight difference between them. Innovation is largely driven by the actual need. This difference was clearly explained during the workshop. These insights were accompanied by several representative examples, hands-on activities, including brainstorming

sessions, group discussions, and idea generation exercises which made the deliberations appealing to the students and motivated them to come up with various innovative ideas. Various other types of innovations were also discussed during the workshop for example incremental innovation – Just as coke has upgraded itself. Similarly, Gillette razor has also included some new features into its old model to satisfy human needs. These are examples of incremental innovation. Next disruptive innovations were discussed. Computation, Nano, AIML, 5G, Cloud these are examples of disruptive innovations. Earlier we used floppy then cd to store data afterwards data was stored in a pen drive and nowadays the cloud drive eg. google drive has replaced all former predecessors. There is also architectural innovation. Earlier diamond was used to cut glass. Later it was used as wedding ring and after that it became priceless. Another kind of innovation is to use old things in the light of modern technology. It was mentioned in the workshop that we just have to remember that no problem is too big, no idea is too small. The workshop was ended by giving vote of thanks by Dr. Tanmoy Roy Chowdhury and Mr. Milan Chakraborty, the coordinator of this workshop.

CELEBRATION OF WORLD INTELLECTUAL PROPERTY DAY

Date: 26th April, 2023

MCKVIE's Innovation Cell in association with Rotaract Club of MCKVIE celebrated World Intellectual Property Day on 26th April 2023 to raise awareness of patents, copyrights, trademarks and designs among students and faculties that could impact the day-to-day life.

Our speaker for the event was Prof. Dr. Subro S. Thakur. He talked about the different perspectives of Intellectual property and innovation. He talked about creativity and contribution made by creators and innovators to the development of economies and societies across the globe. He also answered many questions raised by the participants. It was a very interesting and enlightening session.



STUDENT'S TECHNICAL ARTICLE COMPETITION-PRAYAS 2023

Date: 28th April, 2023

Institution's Innovation Council (IIC) of MCKVIE organized Student's Technical article Competition PRAYAS 2023 on 28th April (Friday), 2023. This was an offline event and approximately 70 participants (students and faculty members) attended the event. The event was held on an offline mode. Sixteen articles in various domains of Electronics & Communication Engineering and allied fields were accepted for the event. Thirteen articles were presented and a total of seventy participants from various engineering colleges/ universities participated in the program. The presented articles were evaluated on the basis of different criteria by the judges. The prize distribution ceremony was held Offline at MCKV Institute of Engineering on the same day. Certificates and prizes of merit were awarded for first, second and third positions respectively. Certificates and prizes of merit were also awarded for the Articles with highest originality based on plagiarism check values and Editor's choice on the basis of best written and formatted articles. Certificates of participation were awarded to all participants Plagiarism check of submitted papers were done and the proceedings of the competition will be published in a book with ISBN. The participants showed great enthusiasm and expressed their hope to participate in such events in years to come. They appreciated the concept of the event as it provided them the platform to prepare and present the technical articles and also share their views through scientific discussion This event promotes presentation of innovative ideas and models.



NATIONAL TECHNOLOGY WEEK INAUGURAL PROGRAM

Date: 11th May, 2023

In the celebration of 25th National Technology Day, National Technology Week was inaugurated by Mr. Narendra Modi, Prime Minister of India; Mr. Rajnath Singh, Minister of Defence of India; Dr. Jitendra Singh, Minister of Science & Technology, India at Pragati Maidan, Delhi. The theme of the event was School to Startups - Igniting Young Minds to Innovate.

Dr. Jitendra Singh has cited the progress of India from the year 2014 to 2023. In this duration India has remarkably grown in economy, biotech startups, preventive health care and many more. India has reached rank 40 from 81 in Global Innovation Index. In the gathering to celebrate the scientific achievements, Mr. Rajnath Singh also has spoken about the various projects which have been developed in India for this achievement. In the field of Science & Technology, India is in the top 5 countries in the world and after America & China, India is now the 3rd largest startup hub with the help of Digital India, Startup India, Standup India, Make in India and Atma Nirvar Bharat.

In the celebration of 25th National Technology Day, the Prime Minister has launched a Postage Stamp and a Commemorative Coin. In this ceremony, he has also founded the stone for Homi Bhabha Cancer Hospital and Research Centre, Jatni; Platinum Jubilee Block of Tata Memorial Hospital, Mumbai; Lase Interferometer Gravitational Wave Observatory-India, Aundha etc. In his speech, Mr. Narendra Modi said that there are more than 10000 Atal Tinkering Labs (ATL) in 700 districts of 35 states, out of which 60% are opened in the Gramin Schools. He also added that more than 75 lakhs students are working on more than 12 lakhs innovative projects in the ATLs.



Photographs of the Event



INTELLECTUAL PROPERTY RIGHTS (IPRS) AND IP MANAGEMENT FOR STARTUP

Date: 18th May 2023

In order to provide students with the basic knowledge about IPR and IP management system for startup, Institution Innovation Cell of MCKVIE organized a seminar on the topic-“Intellectual Property Rights (IPRs) and IP Management for Startup” on 18th May 2023, at 1 PM. The speaker of the session was Dr. Debopama Kar Ray, Assistant Professor, EE Department, MCKVIE.

The essence of the session was to demonstrate how the knowledge of intellectual property right holds importance and must be kept in mind while building a startup business. The workshop provided the students with vast knowledge on intellectual property rights, it's accounting and valuation which will be of immense help for the students with startup ideas looking forward to build their own startups. After the session came towards the end, the students and our faculty raised their queries related to the topic. The same were also addressed by our speaker. The session was concluded with the key takeaway of the session was to impart knowledge on the IPR 's importance in today's startup oriented economy.

This leadership talk was strengthened by 44 student members and 2 Faculty members of MCKVIE. The program is concluded with the vote of thanks by Mr. Sudeep Samanta, Assistant professor, EE department.



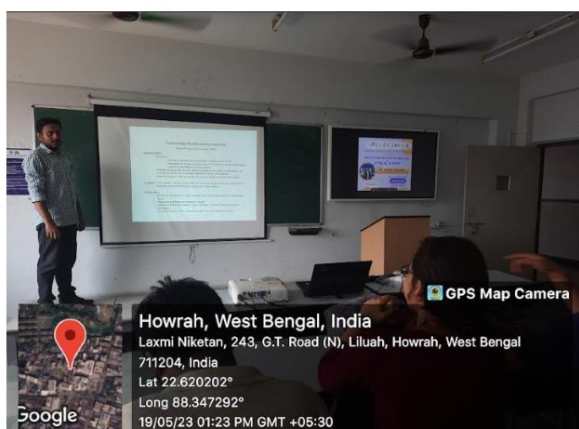
HOW TO PLAN FOR START-UP AND LEGAL & ETHICAL STEPS

Date: 19th May 2023

In order to provide students with the basic knowledge about how to plan a start-up and the steps to be taken towards achieving goals, Institution Innovation Cell of MCKVIE organized a seminar on the topic-“How to plan for start-up and Legal & Ethical Steps” on 19th May 2023, at 1 PM. The speaker of the session was Mr. Sudeep Samanta, Assistant Professor, EE Department, MCKVIE. The vision of the program is to create more job opportunities and a better work environment for all, and to connect and equip people.

The session focused on Business Startup and Entrepreneurship. The intention or the objective of the session was to help the students to plan a startup of their interest. Various aspects of startups were discussed in the program including the idea, mission and legal methods. The speaker emphasized that more than earning for ourselves, startups should be quite innovative that would help the lives of ordinary people.

This leadership talk was strengthened by 45 student members and 3 Faculty members of MCKVIE. The program is concluded with the vote of thanks by Dr. Debopama Kar Ray, Assistant professor, EE department.



NURTURING INNOVATION

Date: 31st May, 2023

The workshop on “Paving way to Innovation” which was organized by the Basic Science department of MCKV Institute of Engineering earlier on 4th and 5th April, finally culminated into a successful competitive event “Nurturing Innovation” on 31st May, 2023. The objective of "Nurturing Innovation" was to provide an opportunity for 1st-year students to showcase their creativity and innovative thinking. It served as a platform for students to present their proposed ideas, with a total of 49 student groups (~ 240 students) submitting their entries. Out of these, 19 ideas were selected to advance to the final stage of the Innovative Idea Contest. The event aimed to foster a culture of innovation and encourage students to think outside the box. It was an excellent opportunity for participants to gain valuable experience in presenting their ideas and receiving feedback from the judges.

The introductory speech delivered by Prof. Abhijit Lahiri, the Principal of MCKV Institute of Engineering, set the stage for the competition and ignited enthusiasm among the participants. His words of encouragement motivated the students and created a sense of excitement for the event. Prof. Debapriya De, mainstay of several endeavors on innovation in MCKVIE, Dr. Tanmoy Roy Chowdhury, Dr. Brojendranath Dey and Ms. Arpita Ghosh were judges for the event. Their expertise and insights played a crucial role in evaluating the presentations.

The presentations, delivered in front of teachers and judges, were a testament to the students' dedication and enthusiasm. The participants showcased an innovative mindset, which was highly appreciated by the audience present at the event. The students' ability to think creatively and present their ideas effectively was commendable.

Although all the projects presented were of high merit, being a competition, two projects had to be chosen for the winner and runner up position.

1. Project: MEDMIK - THE ULTIMATE SOLUTION Presented by students from the CSE and CSE (AIML) departments, this project proposed a novel application intended to bring about a much-desired interactive support for the patients and elderly community. The group, known as “Team Medmik”, secured the 1st position.

2. Project: POLARIS - SAKHI The application proposed by another group of students from CSE (Data Science) department namely POLARIS came out with features which will enable the community in general to access the available government/non-government schemes and benefits with ease and without going into hassle of search in internet. The title of this project was SAKHI and the 2nd position was bagged by this group.

Other Noteworthy Projects: In addition to the winners, several other projects showcased innovative ideas that deserve mention:

- i) Proposal for a multi-health stick as a support for elderly people living alone at home.
- ii) Proposal to design a password-protected bag to protect personal belongings from theft or unauthorized access.
- iii) Idea of using wet cell batteries in electric vehicles, enabling chemical charging instead of electrical charging.
- iv) Idea of utilizing microalgae to combat deforestation.
- v) Idea to implement portable dustbins in trains.
- vi) Proposal to find a tangible solution for the scarcity of water supply from municipalities.
- vii) Development of an app to help students dealing with stress and depression during competitive exams.

- viii) Proposal for a switchable dual-container bottle that can be used for two different purposes.
- ix) Temperature-sensing device - a smart regulator for fans and air filters to save energy and reduce electric bills.
- x) Designing a uniquely designed turbulent backpack made from eco-friendly materials.
- xi) Idea of overcoming language barriers by developing an easy-to-use and effective product providing seamless translation into various languages.
- xii) Project addressing the problem of not having concrete evidence during critical situations, capturing images as evidence.
- xiii) Proposal for making an interactive computer and normal eyewear integrating a computing system, providing users with more information in front of their eyes.
- xiv) Idea of forming a machine to deal with the energy crisis, generating maximum output from a small energy input.
- xv) Proposal for designing a smart shoe for women's safety.

The event concluded after vote of thanks to the chair and address to the audience by Dr. Debapriya De and Dr. Dipankar Ghosh, Head of the department of Basic Science. The winners will be honored with awards and certificates during the next Induction Programme, emphasizing the institute's commitment to promoting innovation and motivating students for start-up ideas. This recognition aims to encourage a culture of innovation among the student community, inspiring them to explore their creative potential and contribute to the advancement of knowledge and ideas. The event serves a platform to encourage students to continue their innovative pursuits throughout their academic journey and beyond and creates a supportive ecosystem for students to excel in their chosen fields.



COLLOQUIUM ON RECENT TRENDS IN IT SERVICES INDUSTRY

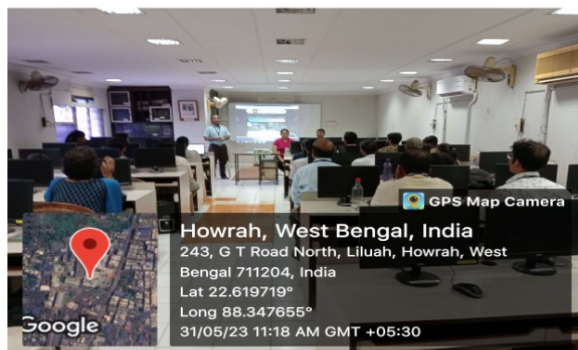
Date: 31st May, 2023

The IT Department of MCKVIE in collaboration with Institution's Innovation Council (IIC) of MCKVIE organized “1-day Colloquium on Recent Trends in IT Services Industry” on 31st May (Wednesday), 2023. This is an offline seminar and approximately 77 participants (students and faculty members) attended in this Seminar. This seminar was held on the IT Lab1. The duration of the event was 3 hours (from 11 am to 2 pm).

The Speakers of the seminar were Mr. Banibrata Pratna, Solution Architect of Ericsson India Global Services Pvt. Ltd and Ms. Uddipana Bhattacharya, Software Engineer of Cognizant Technology Solutions.

After the welcoming message of HOD IT Sir, the speaker, Mr. Banibrata Pratna started the discussion about different recent trends of IT Industry like cloud computing, metaverse, blockchain technology, 3D printing, quantum computing which tends to innovation, computing and applications. He enlightened the students and faculties about importance of emerging areas for innovation. Ms. Uddipana Bhattacharya focused on several topics like Artificial Intelligence & Machine Learning (AI-ML), big data analytics, datafication and IoT (Internet of Things) .

This session encouraged students about the opportunities of recent IT service Industry. Both speakers had taken various questions from students about the current trends of IT industry and discussed very elaborately and clearly at the last hour. The students were very much satisfied about this discussion and gathered knowledge about the current situation of IT industry. Both speakers also encouraged the students to work with real-life project of the above discussed areas as internship.



SESSION ON NURTURING INNOVATION: A JOURNEY THROUGH REAL WORLD PROBLEM SOLVING

Date: 17th August, 2023

About the session: Institution Innovation Council IIC, MCKVIE organized a session on Nurturing Innovation: A Journey through Real World Problem Solving on 17/08/23 at 10am. The first speaker, Dr. Hrishikesh Bhaumik, Associate Professor of the Department of Information Technology, RCC Institute of Information Technology, discussed Cyber security: Trends and Challenges. The second speaker Mr. Harsh Baid CSE, 4th year, MCKVIE has discussed the Smart India Hackathons and How to crack it.

Objectives of the session: The goal of cyber security is to ensure secure storage, control access and prevent unauthorized processing, transfer, or deletion of data. It safeguards the confidentiality, integrity, and availability of information. The idea of Smart India Hackathon promotes innovation and out-of-the-box thinking among young minds and aims to institutionalize a model for harnessing the creativity and technical expertise of millions of Indian students for the direct benefit of our nation.

Benefit in terms of Learning/ Skill/ Knowledge obtained: Cyber security training can teach people about common online hazards that target personal data, like social engineering, identity theft, and phishing schemes. People can identify and stay away from potential frauds, dubious websites, and dangerous emails by being aware of these strategies. Benefits of Smart India Hackathon are Ingenious. Harnessing creativity and expertise of students, academicians and visionaries.



PULSE.EXE EVENT

Date: 18th August, 2023

PULSE.EXE 2K23 was the second iteration of a yearly technical event organized by the students and faculty members of the IT Department of MCKV Institute of Engineering, held on 18th August, 2023 at IT Department of MCKV Institute of Engineering from 9:30 a.m. onwards. Students of all departments from MCKV Institute of Engineering were competing in teams of two members to prove their knowledge and skills. There were 124 teams have participated in the event.

Objectives of the event: To showcase the knowledge and innovative ideas of the participants in solving real life programming problems.

The event comprises of 3 rounds as follows:

Round1: Apti-Quest Round 1 is basically an aptitude test round for elimination. All registered participants have appeared for this round. There are 30 multiple choice questions in this round and need to be answered within 30 minutes. The question paper consists of coding and decoding, aptitude, general knowledge, science and technology, riddles and c programming skills. 20 teams were selected for the second round based on the performance of the 1st round.

Round2: Picture-Perfect the 2nd round named Picture-Perfect of this event was Audio-Visual round. Top 20 teams who get selected in the first round are eligible to appear for this round. 15 audio-visual questions are there on different fields. Top 5 teams were selected for the 3rd and final round based on the performance of the second round.

Round3: Code-Odyssey the 3rd and final round was a coding round named Code-Odyssey. In this round participants need to solve two real life problems by using their innovative ideas and also need to implement the idea within the stipulated time period.

Outcome of the Event: It helps to gain the confidence of the participants over coding and programming for solving a new real life problem. These problem solving skills also help to develop more skills in a person and build a promising career in future.



INNOVATION & ENTREPRENEURSHIP OUTREACH PROGRAMME

Date: 21st August, 2023

Institution's Innovation Council (IIC) of MCKVIE organized an outreach session “Innovation & Entrepreneurship” on 21st August (Monday), 2023. This is an offline event and total 79 students of Jagadispur High School, Howrah attended this event. Dr. Joydeep Banerjee, Assistant Professor of ECE Department & Convener IIC-MCKVIE and Mr. Ajoy Ghosal, Laboratory Instructor of ECE Department & member IIC-MCKVIE conducted this outreach programme as joint speakers.

Dr. Banerjee discussed about different aspects of identification of right problem and problem solving approach. He has discussed about different techniques of ideation regarding innovation. He discussed about different topics like importance of innovation and idea generation. He focused about the importance of identification of problem and taking right approach for innovation.

Then, Mr. Ghosal started the discussion about different aspects of Entrepreneurship. He enlightened the students and faculties about the importance of entrepreneurship and start-up. He focused on several topics like entrepreneurs' skill development, and awareness generation of the qualities of successful entrepreneur. He also discussed the different functions of an entrepreneur, the role of entrepreneur in our economy and society, challenges of entrepreneur. His session encouraged students about the opportunities of entrepreneurship. He also discussed about the activities of MCKVIE regarding entrepreneurship.

The session was very exhaustive, and students got awareness about diverse opportunities available in this field. In nutshell, through this session, students were exposed and were encouraged to generate and execute their own ideas to improve innovation skill and entrepreneurship skill.



SESSION ON ANGEL INVESTMENT/VC FUNDING OPPORTUNITY FOR EARLY-STAGE ENTREPRENEURS

Date: 21st August, 2023

In honour of World Entrepreneurship Day, the Startup Club by MCKVIE and the IIC MCKVIE organized a session on "Angel Investment/VC Funding Opportunity for Early-Stage Entrepreneurs" with the tagline "AAGAZ- Beginning an entrepreneurial journey" on August 21, 2023, starting at 11:30 a.m. in room number B312 (Seminar Hall). There were 343 students who registered overall; 110 of these students attended the programme. Two of our well-known, prosperous entrepreneurs were welcomed by MCKVIE's startup club, inspiring the audience and helping to mould their ideas. (1) Majaz Hassan (Founder & CEO, Fresh sharp) and (2) Md. Amaan Ansari (Founder and CEO, Atomos Technologies (OPC) Pvt Ltd, Founder and CEO, Cifer Technologies Pvt Ltd). These two speakers were invited, and their remarks had a significant impact on our actions going forward and helped us develop our own startup mentality. The speakers' speeches blessed the day and made the occasion a success.



CELEBRATION OF WORLD ENTREPRENEURSHIP DAY

Date: 21st August, 2023

The Startup Club by MCKVIE in collaboration with the IIC MCKVIE organised an event on accordance of World Entrepreneurship Day with a tagline of "AAGAZ- Beginning an entrepreneurial journey" on 21st August 2023 in the college premises at 11:30am onwards.

The main purpose of this event was to undertake threshold activities to generate awareness, motivate to take a choice of entrepreneurship as career and promote innovation and start-up ecosystem, among the students. There are 343 students registered for this event and 109 students attended along with faculty and staff members. Two of our renowned successful entrepreneurs were invited who had motivated the audiences roots and shape their thoughts.

Majaz Hassan (Founder & CEO Freshsharp) and Md. Amaan Ansari(Founder and CEO, Atomos Technologies (OPC) Pvt Ltd ,Founder and CEO, Cifer Technologies Pvt Ltd) . These two speakers were invited and their speech bought lots of influence on our upcoming decisions and helped us to build up your own startup minds. The speech of the speakers made the day auspicious and made the event a successful one.

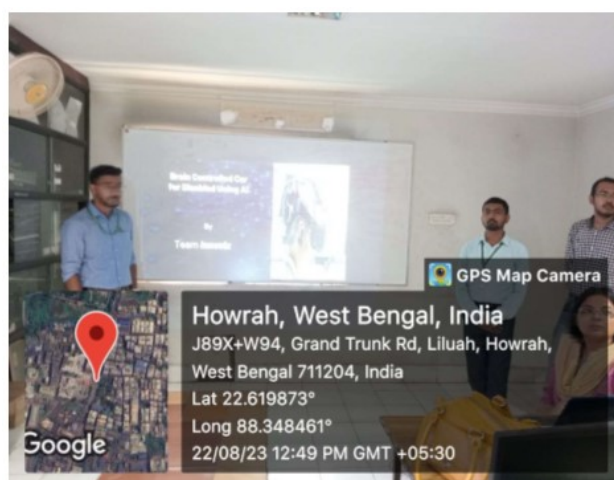
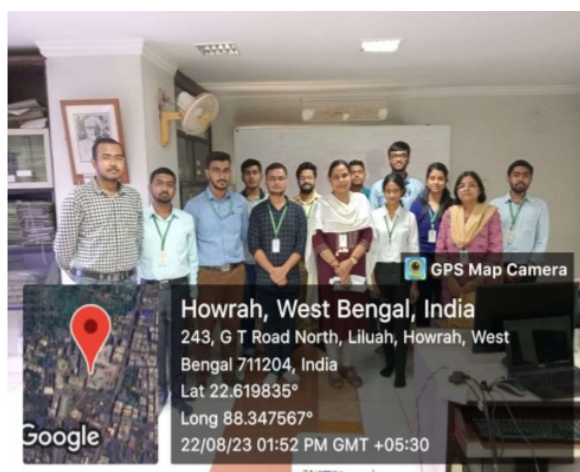


STUDENT'S IDEA MAKING CONTEST

Date: 22nd August, 2023

Institution's Innovation Council (IIC) of MCKVIE organized Student's Idea making contest on 22nd August (Tuesday), 2023. This was an offline event and approximately 45 participants (students and faculty members) attended the event. Eight ideas in various domains of CSE & IT were accepted for the event. Three ideas were selected and presented and a total of 45 participants from B. Tech (IT, AIML) department participated in the program. The presented ideas were evaluated on the basis of different criteria by the judges. The judges were the HOD of CSE Department and Ms. Sasmita Subhadarsinee Choudhury (Assistant professor of CSE Dept). Merit Certificate was awarded to the first ranker team. Certificates of participation were awarded to all participants.

The participants showed great enthusiasm and expressed their hope to participate in such events in years to come. They appreciated the concept of the event as it provided them the platform to prepare and present the ideas and also share their views through scientific discussion. This event promotes presentation of innovative ideas and models.



INNOVATION/ PROTOTYPE VALIDATION - CONVERTING INNOVATION INTO STARTUP

Date: 24th August, 2023

In order to provide students with the basic knowledge about how to convert innovation into start-up and the steps to be taken towards achieving goals, Institution Innovation Cell of MCKVIE organized a seminar on the topic- “Innovation/ Prototype validation -converting innovation into startup” on 24th August, 2023, at 12.50 PM. The speaker of the session was Dr. Debopama Kar Ray, Assistant Professor, EE Department, MCKVIE. The vision of the program is to create more job opportunities and a better work environment for all, and to connect and equip people.

The session focused on Business Startup and Entrepreneurship. The intention or the objective of the session was to help the students to convert innovation into start-up of their interest. Various aspects of startups were discussed in the program including the idea, mission and legal methods. The speaker emphasized that more than earning for ourselves, startups should be quite innovative that would help the lives of ordinary people.

This leadership talk was strengthened by 45 student members and 5 Faculty members of MCKVIE. The program is concluded with the vote of thanks by Mr. Sudeep Samanta, Assistant professor, EE department.



KODIKAS 2K23: INNOVATE YOUR CODE GAME

Date: 24th August, 2023

KODIKAS is all about participants demonstrating strong teamwork, quick thinking, and the ability to thrive in a competitive environment. The event aims to promote innovation and nurture problemsolving capabilities. It is an initiative taken by the Department of Computer Science and Engineering, MCKVIE in collaboration with IIC-MCKVIE to encourage coding culture among students to test and develop their coding skills to adhere the industry requirements.

OBJECTIVE - A Competitive programming contest which is a mind sport, usually held over the Internet or a local network, involves participants to write programs according to the designated specifications. The objective of this competition is to bring all the geeks of coding to one venue for establishing a common ground to compete with other geeks. KODIKAS 2K23 will help students to build confidence and consequentially encourage them to participate fearlessly in future coding competitions.

Institution Innovation Council IIC, MCKVIE organized an event on 24th August 2023 at 10 am. Total 143 teams (team of two) were registered. Three rounds of the events: -

Round 1: Kode Teaser

1. Platform - Quizziz 2.
2. Number of Questions - 3.
3. Marks for Questions - 1/2 marks
4. 4. Time - 30 minutes
5. 5. Per question time - 60/90 seconds

Round 2: Koder Rank (30)

1. Number of Questions - 3
2. Marks - (100-150-200)
3. Time - 45 or 60 minutes
4. Platform - Hackerrank

Round 3: Kodikas Premier League (8)

Round 3.1: Debugging

1. The first round will be between the Top 8 finalists.
2. You will be given a booklet consisting of 5 questions.
3. In this round, a problem statement, input/ output format and the code will be given to you. You are required to find the error in the code and then change it in order to get the correct output.
4. A time limit of 5 minutes will be set.

5. The top 4 teams which debug the code first will move forward to the next round.
6. For the bottom 4 teams- Do not worry, you still have an opportunity to reach the top! The bottom four teams will proceed to Lower Round 1.

Round 3.2: Hacking

1. The top 4 teams will compete against each other in this round.
2. You will be given a booklet consisting of 3 questions.
3. In this round, a problem statement, input/ output format and the code will be given to you. You are required to find the test case for which the code will not work.
4. A time limit of 5 minutes will be set.
5. The top 2 teams which debug the code first will move forward to the next round.
6. The bottom two teams still have a chance to shine! In round 4.

Round 3.3: Code Completion (Lower Round 1)

1. The bottom 4 teams from round 1 will compete in this round against each other.
2. A booklet consisting of 5 questions.
3. In this round, a problem statement, input / output format and the code will be given to you.
4. A time limit of 5 minutes will be set.
5. The code provided will be an incomplete code. You are required to complete the given code. If your logic is correct and you are ahead of other teams, you will proceed to the next round.
6. Top 2 teams will proceed to the Round 4.

Round 3.4: (Hacking+Code Completion) (Top 2 + Bottom 2)

1. In this round, the bottom 2 teams from Round 2 and top 2 teams from Round 3 will compete against each other to secure a position in the finale.
2. The teams will be given a booklet consisting of 4 questions.
3. Two questions will be of Code Completion and the other Two will be of Hacking.
4. A time limit of 5 minutes will be set.
5. The top teams will proceed for the final clash.

Round 3.5: FINALE ROUND

1. In this round, you will have to solve a riddle.
2. The riddle will help you decode a number, which will lead you to a department classroom. For example, A_ _ _.
3. You will have to go to the classroom where you will find the final question of KPL.



SEMINAR ON PATENT FILLING AND IPR

Date: 28th August, 2023

In order to provide students with the basic knowledge about Patent filling and IPR, Institution Innovation Cell of MCKVIE organized a seminar on the topic-“Patent filling and IPR” on 28th August 2023, at 12.50 PM. The speaker of the session was Dr. Debopama Kar Ray and Mr. Sudeep Samanta, Assistant Professor, EE Department, MCKVIE.

The essence of the session was to demonstrate how the knowledge of intellectual property right holds importance and must be kept in mind while building a startup business. The workshop provided the students with vast knowledge on intellectual property rights, it's accounting and valuation which will be of immense help for the students with startup ideas looking forward to build their own startups. After the session came towards the end, the students and our faculty raised their queries related to the topic. The same were also addressed by our speaker. The session was concluded with the key takeaway of the session was to impart knowledge on the IPR 's importance in today's startup oriented economy.

This leadership talk was strengthened by 48student members and 8 Faculty members of MCKVIE. The program is concluded with the vote of thanks by Dr. Prasenjit Chatterjee, Professor, ME department.



SESSION ON INNOVATION AND START-UP ECOSYSTEM ENABLERS

Date: 29th August, 2023

Institution's Innovation Council (IIC) of MCKV Institute of Engineering organized a session on “Innovation and Start-up Ecosystem Enablers” on 29h August (Tuesday), 2023. This is an online event and more than 75 participants (students and faculty members) attended this event.

Dr. Vikas Khullar, Associate Professor, Department of Computer Science & Engineering of Chitkara University Institute of Engineering and Technology, Chitkara University delivered the session as the key speaker.

Professor Khullar started the discussion about different aspects of the Innovation and Start-up ecosystem. He enlightened the students and faculties regarding the importance of innovation and different start-up entities and enablers. He focused on several aspects of startups like the role of the investors, incubators, accelerators, mentors, and government bodies. In the session, he discussed the idea-developing skill of start-ups and the different challenges of startups, entrepreneur alertness, and qualities requirements for a successful start-up. He also discussed the different functions of developing a startup, the role of an entrepreneur in our economy and society. His session encouraged participants regarding the opportunities of various startups and innovative ideas.

Then, Dr. Khullar discussed about different steps of incubation and an early-stage startups and developing their idea into business. He also compared the role of accelerators and incubators. He also focused on the early stage to the growth stage of the incubators. Various support regarding incubation like providing resources, workplace, and mentorship was also presented in the session. He focused on the current scenario of commercialization of scientific discoveries in the field of IT and Bioscience. He also discussed the importance of the legal structure of a startup among the participants. The session was very intensive, exhaustive, and fruitful for both the students and faculty participants. The participants got awareness about diverse opportunities available in the innovation and startup field. In a nutshell, throughout this session, participants were exposed and were encouraged to generate and execute their own innovative ideas and convert them into startup.



AAZADI

Date: 15th August, 2023

MCKV Institute of Engineering celebrated 77th Independence Day of India at college premises. Principal of MCKVIE did the flag hosting ceremony. The Staff members along with students and support staffs sang the national anthem and sweets were distributed among them. it's a moment to reflect on our incredible journey as a nation. We're celebrating the spirit that has shaped our diverse land into a thriving democracy. This day is a way to honor what our ancestors did for us and to remember the values that bring us all together. Let's promise again to work toward a future of unity, growth, and wealth. Help us celebrate this important event and remember our past while looking forward to what the future holds. This day marks the end of the challenging battle for freedom that famous people like Gandhi, Bhagat Singh, and Subhas Chandra Bose lead. It was a turning point in Indian history and is still remembered as a tribute to peaceful civil resistance and leadership.

Our IIC club in association with NSS unit organized a quiz, song and dance competitions. More than 70 number of students participated and awards were given to them by Dean of Student affairs.

