



USES AND IMPACT OF 3D PRINTING TECHNOLOGY



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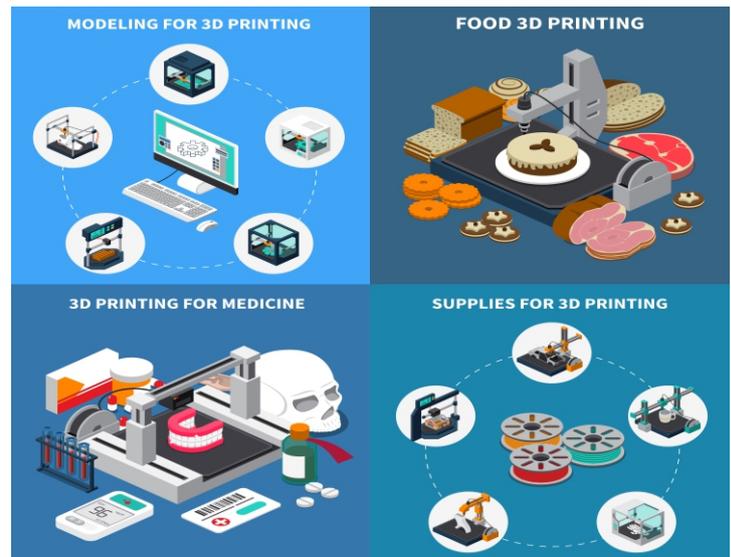
INTRODUCTION

Advancements in science and technology help to improve the lifestyle and quality of life of mankind. One such invention in engineering and technology is 3D Printing, i.e., 3-Dimensional printing. 3D printing portrays the step-by-step process involved in the design of a manufactured product in a digital manner (Nasim Samiei, 2020). The American Society for Material and Testing (2009) defines 3D printing as “the fabrication of objects through the deposition of a material using a print head, nozzle, or another printer technology”. Stereo Lithography, Fused Deposition Modelling (FDM), Selective Laser Sintering (SLS) and Laminated Object Manufacturing (LOM) are the common methods of 3D printing. (G. Harsha Vardhan, et al., 2014).

Even though the first 3D printer was developed in 1984, the first license to develop 3D printers for use on a larger scale was obtained from MIT in 1995 and it then took ten more years to introduce the first colour printer (G. Harsha Vardhan, et al., 2014). Since 2010, it has been used by high-tech sector, where interest increased from 2015 and peaked in 2018.

Although 3D printing has extensive benefits, the considerable reduction in the printing cost and the popularity projected by the media has led to the entrance of 3D printing into the consumer and organizational levels. (Desiree Valeria Ukobitz, 2021).

3D printing is gaining momentum to upgrade the ways in which companies operate, as there is pressure to find new ways to remain innovative and competitive by reducing manufacturing times and operational costs across the supply chain. As such, the focus of this essay will explore the use and impact of 3D printing technology in the future.



SCOPE OF 3-D PRINTING IN DIFFERENT INDUSTRIES

Construction Industry

3D printing technology in construction leads to high manufacturing flexibility and low operational costs. In 2004, a study conducted by PWC mentioned that 25% of companies are using 3D printing in prototyping, whereas Norway showed only 20% usage (Nils O.E Olsson et al., 2019). However, the existing average usage level is not very high in many countries, and this creates an opportunity for 3D printing to become a standard in construction sector. For instance, data collected from survey research among building owners, architects, engineering and construction management consultants opined that in near future, 69% of the companies will use 3D printing for building blocks and 75% use it for complex parts and very few (31%) will use for sculptures and decorations among the respondents (Nils O.E Olsson et al., 2019). In addition, greater impacts of 3D printing on the construction industry are: the advantages of higher customization, waste reduction due to higher printing precision and minimal error in production, and improved carbon footprint as parts can be printing in-house and less transport throughout the supply chain. Along with cyber security risks, there is also risk for intellectual property theft where digital files can be easily copied (Berman, 2012).

Pharmaceutical Industry

3D printing in the pharmaceutical industry has

transformed non-digitalized medical products into digital 3D content. It enables fast and safe production data low cost by using various trends like powder-based printing, extrusion-based printing, and injection printing methods which increase efficacy, precision, and customization. To illustrate, Fused Deposition Modeling (FDM) is the most used technique in drug 3D printing. The major challenging of maintaining optimum extrusion temperature is well managed by Multiply Labs by using pharmaceutical filaments while loading the filaments with drugs, as a result it will not affect the drug. Speeding up the process will enhance quicker release into the market. For instance, Spiratam was approved by USA FDA in 2015 and available in market. (Nasim Samiei, 2020). Spiratam is a drug for epilepsy, the major benefit of the drug is it will start acting in a few seconds and this advancement gave a way for people who have trouble swallowing traditional pills get more personalized treatment through 3D printed medicine.

Healthcare Industry

Conventional imaging techniques limit the accuracy of diagnostic assessment as it is difficult to examine the soft tissue or osseous structure on a two dimensional level. 3D printing ensures comprehensive surgical repair as it provides complete information on location, blood supply and scope of invasion and so on (Chao Li et al., 2019). Computer aided design (CAD) and 3D printing techniques improved diagnostic accuracy, procedural precision and operative time is considerably reduced. These techniques enhance accuracy in osseous reconstruction, reconstructive surgery for maxillary defects, ablative surgical planning and operative simulation. 3D printing technology should be further taken to greater heights to save humankind.

Other Industries

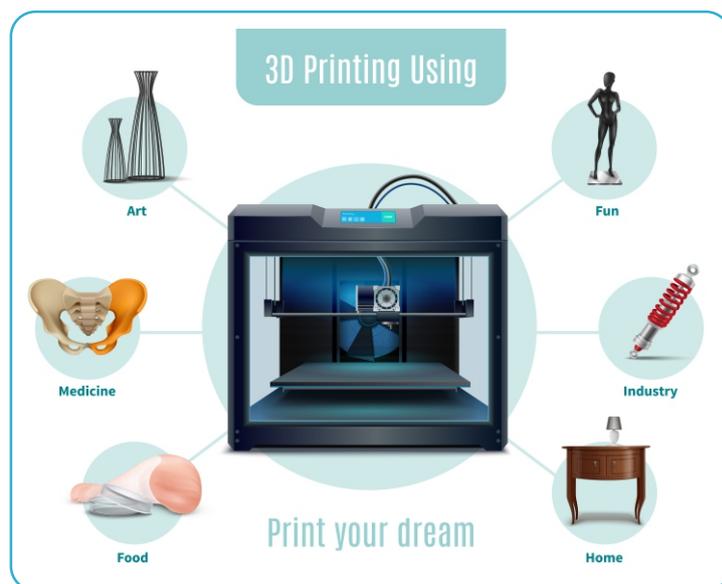
A structured literature review carried out by a team of researchers (Michael J. Ryan, et. al., 2017) mentioned adoption of 3D printing would occur in sectors and scenarios such as Mobile 3DP, 3DP for Make-To-Stock, Local and regional factories, craft businesses, and personal manufacturing to facilitate their operationalization. Analysing the thermal characteristics, tensile testing, pull out testing conducted on recycled ABS, PLA and HIIPS thermoplastic materials contributed to optimize the input process variables (Ranvijay Kumar and Rupinder Singh, Ilenia Farina, 2018). This will help to solve plastic pollution crisis by using using recycled plastic for emerging 3D printing businesses. 3D printing technology applied on food production was also categorized according to the food and it had its footprints from the farmer to the consumer (Celalettin Degerli, Sedef Nehir El, 2017). Shape memory materials are thermoresponsive widely used in aerospace for space-deployable structures. A thermally induced intelligent materials are used in

biomedicine for stimuli-sensitive implant materials and to impart in endovascular thrombectomy device. Self – assembly, self-actuating and self-sensing materials allows automated folding for assembly used for biological applications, linear and rotary actuators, touch screens and underwater robots. Electroactive Polymer IPMC, Buck gel are also applied in various fields.

Future Progress

In 2013, the World Economic Forum's Global Agenda Council listed intelligent materials as one of the top technologies for research and as popularity increases, new concepts of 4D printing emerged. This 4D technology has various merits over 3D printing such as being even more cost-effective, fast curing, and high heat-resistance temperature and so on. One defining difference is that 4D has the potential for self-sensing behaviour, which still requires more research and development. Self-sensing imparts sensing capabilities to materials such as metals, plastic, paper, fabric and allows automated detection which can be used to self-diagnosis followed by self-healing. Goergia Institute of Technology developed a prototype to detect the pressure changes in touching the skin which attracted the research forum. Self-assembly and self-folding structures, active composite structures, environmental adaptive mechanism, structural health monitoring and self-deployable systems are some of the wide range of applications in the 3D printing technology. In healthcare industry, it can penetrate to the level of detecting malaise (Xin Li, 2016). Using Artificial Intelligence with 3D printing for designing personalized devices and analyzing data from IoMT (Internet of Medical Things) devices ensure better care.

Though 3D printing has appealed to many industries, it was the most investigated technology. Despite all the benefits, 3D printing technology has strong potential to penetrate so many other industries, and within the industries where it already exists, increase in utilization rate and improved efficiency is much possible.



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ACADEMIC PROGRAM

AWARENESS ON BLOOD CANCER AND STEM CELL DONATION AT IIMR BANGALORE

IIMR Bangalore organised an awareness session on 11 September 2025 at the campus' aimed at educating students on blood cancer, stem cell transfusion, and the critical work of the DKMS Foundation. The event reflected the institution's commitment to public health advocacy and student engagement in socially meaningful initiatives.

The session was led by Dr Sarala Raju, Dean of Academics and Student Affairs. Ms Fedrica Edin Brow, Associate Donor Recruitment specialist from DKMS Foundation India, as the chief guest. The seminar brought together volunteers and students from the PGDM 2024-26 and 2025-27 batches, including active participation from Vibhuti Dabhi, Prajakta Madavi, Sonali Mendhe, Kumari Shreya, Dr Aaditi Sugdare, Dr Kataram Swetha, Kothare Tejaswini, Bommineni Mounika, Koushik Kumar, Siva Teja, Nitharshini and Pushpalata.



The session began with a welcome address presented by Ms Prajakta Madavi, setting the stage for a discussion rooted in public health significance. Ms Fedrica introduced the students to the prevalence of blood cancer in India, detailing how it has become a mounting challenge for families and healthcare systems. She emphasised the role of stem cell transfusion in improving survival rates and enhancing the quality of life for patients suffering from blood cancer and other blood-related disorders. Her presentation clarified the medical importance of donor registration and the scientific process that links registered donors to patients needing a genetic match.

The session addressed widespread myths surrounding stem cell donation, explained the biological and procedural steps involved, and presented testimonial videos that illustrated real cases of donor impact on patient outcomes. Students gained clarity on how swab-based sample collection works, the significance of maintaining donor registries, and how NGOs like DKMS streamline support for both donors and recipients.



Following the talk, a stem cell donor registration drive was conducted. With guidance from Ms Fedrica and the volunteers, students received step-by-step instructions about the swab sample collection process and provided informed consent for voluntary registration. Approximately 28 students came forward to register as potential stem cell donors. Each participant's barcode and registration data were cross-verified by the team, after which the samples were securely packed for further processing by the NGO. The drive concluded with an appreciation note acknowledging the spirit of voluntarism among students and the continued collaboration between the institution and DKMS.

This awareness programme not only enhanced student understanding of blood cancer and stem cell donation but also activated a sense of responsibility toward public health challenges. The event reinforced the significance of youth participation in lifesaving initiatives and strengthened the campus culture of community-driven healthcare engagement.

SPRING AT IIMR – FRESHERS' PARTY 2025 WELCOMES THE NEW BATCH WITH CELEBRATION AND CAMARADERIE

IIMR Bangalore hosted its much-awaited “Spring at IIMR – Freshers' Party 2025” on 6 September 2025 at the campus grounds, creating a vibrant and memorable evening for the incoming PGDM batch of 2025-27. Organised by the Academics Department, the event aimed to warmly welcome the new students, promote interaction with seniors, and help them integrate smoothly into the IIMR community as they begin their academic journey.

The celebration brought together students from PGDM Batch 2024-26 and the newly joined Batch 2025-27 across both specialisations, Hospital and Health (H&H) and AI and Data Science (AI&DS). The atmosphere on campus reflected excitement, anticipation, and the lively spirit that marks the beginning of a new academic year.

The programme unfolded through a lively sequence of performances and interactive segments. The evening opened with an energetic dance performance by second-year students Pooja, Sandhiya, Naveen K, Harsha, and Keerthana, setting a cheerful tone for the event. This was followed by the much-enjoyed ramp walk, where first-year students took to the stage with confidence and creativity, marking their first public appearance in the IIHMR community.



A second dance presentation by Swathi E and Sheetal kept the momentum high, after which the audience shifted to a fun competitive activity, “Grab the Bottle”. Three pairs of first-year students participated enthusiastically, and the winning team walked away with chocolates as their first prize, adding an element of playful competition to the evening.

The talent fest segment showcased the artistic range of the new batch. First-year students performed dances and sang popular songs, reflecting their creativity and energy. This segment allowed participants to connect beyond academics and celebrate personal expression.

A question-and-answer round was conducted for the finalists from the ramp walk, adding a blend of spontaneity and humour to the night. The highlight of the event followed with the announcement and crowning of Mr Fresher and Ms Fresher, honouring the students who best represented confidence, charm, and engagement throughout the evening.

ALUMNI SPEAK



Ms. Reddem Jalaja Reddy

Software Engineer-Cerner
Electronic Health Records (EHR)
Tech Mahindra

*“Bridging Clinical Insight and
Healthcare IT – A Journey of
Adaptability and Growth”*

In this edition of Pulse, we feature Ms. Jalaja Reddy, an alumna of IIHMR-B, Batch 2021-2023 who is currently associated with Tech Mahindra, working on Cerner Electronic Health Records (EHR). With a strong foundation in nursing and hospital administration, Jalaja's journey reflects a thoughtful shift from clinical education to the fast-evolving world of healthcare IT.

Jalaja began her academic path in Nursing, gaining a solid understanding of patient care and clinical workflows. Keen to explore opportunities beyond traditional clinical roles, she went on to pursue a PGDM Hospital and Health management from IIHMR-B. This transition helped her broaden her perspective on healthcare systems, operations, and management, preparing her for roles outside the hospital environment. While her background remained rooted in healthcare, she chose to step directly into the corporate sector rather than working in a hospital setting.

Currently, Jalaja works in an IT corporate environment at Tech Mahindra, supporting Cerner EHR projects. Her role focuses on aligning healthcare knowledge with technology-driven solutions, ensuring that clinical understanding is effectively translated into digital healthcare systems. This position marks her first professional role, making her journey particularly notable for its early exposure to complex healthcare IT platforms.

One of the key challenges Jalaja faced was adapting from a clinical and hospital management background to an IT-driven corporate setup. The shift required a different mindset, wider technical understanding, and comfort with a fast-paced corporate culture. She overcame this through continuous learning, adaptability, and a step-by-step approach to skill building, allowing her to grow confidently into her role.

Jalaja's professional philosophy is deeply personal and inward-focused. Rather than looking outward for role models, she measures success by her own

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The celebration concluded with a Vote of Thanks delivered by Dr Sarala R, Dean of Academics and Student Affairs, acknowledging the efforts of organisers and participants, and offering warm wishes to the new batch as they embark on their academic and professional journey at IIHMR Bangalore.

The Freshers' Party not only brought joy and entertainment but also strengthened the sense of belonging among students, marking the beginning of meaningful connections and collaborative learning for the year ahead.

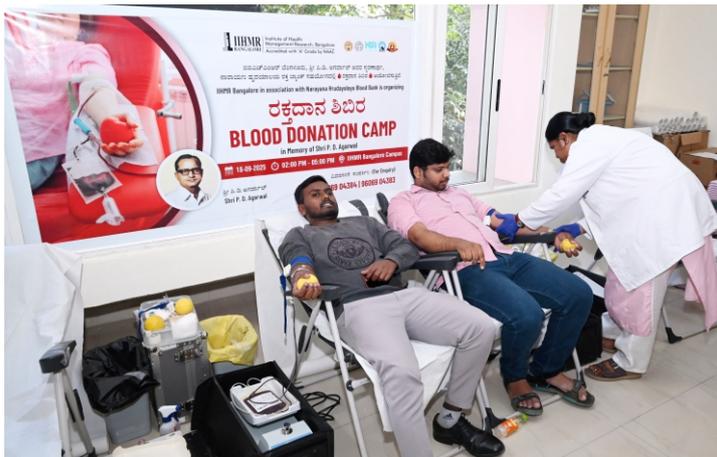
BLOOD DONATION CAMP AT IIHMR BANGALORE: HONOURING SERVICE AND SAVING LIVES

IIHMR Bangalore conducted its annual Blood Donation Camp on 18 September 2025 at the IIHMR campus in collaboration with Narayana Health Blood Bank. The initiative is held every year during the third week of September in memory of Shri P. D. Aggarwal, whose lifelong commitment to service continues to inspire the Institute's community-focused activities.

The camp drew participation from 55 registered students, faculty members, and staff. The event witnessed enthusiastic engagement across campus. A total of 26 individuals successfully donated blood, contributing to the lifesaving mission of the camp.

The medical team from Narayana Health Blood Bank ensured smooth and efficient camp management. They conducted detailed medical screening, adhered to safe blood collection procedures, and provided post-donation guidance and care to all donors. Their presence helped create a reassuring environment that emphasised the importance of safe and voluntary blood donation.

The Blood Donation Camp reaffirmed IIHMR Bangalore's dedication to public welfare and student engagement. The Institute expressed heartfelt appreciation to the Narayana Health Blood Bank team and to every donor who took part in the initiative. Through their collective effort, the event stood as a meaningful tribute to Shri P. D. Aggarwal and continued the legacy of service he envisioned.



ALUMNI SPEAK

growth. She reflects on how far she has come, where she stands today, and how she is progressing, choosing not to compare her journey with others.

In managing workplace stress, she believes in emotional balance and perspective. By not taking things personally, staying calm, and focusing on task completion rather than conflict, she maintains clarity and productivity even in demanding situations.

Looking ahead, Jalaja aims to continue learning and building a strong long-term career in the healthcare IT domain, growing steadily within the corporate sector. She also hopes to see greater integration of technology with healthcare workflows, leading to improved efficiency and better outcomes across the industry.

For aspiring professionals and juniors, her advice is simple yet powerful: listen first, avoid arguments, and don't take things personally. She emphasizes that focusing on learning and responsibility often resolves workplace challenges more effectively than confrontation.

Jalaja Reddy's journey highlights how adaptability, self-awareness, and continuous learning can help healthcare professionals carve meaningful careers beyond conventional paths. Her story encourages students to stay open to change, remain grounded, and grow with purpose in an increasingly digital healthcare landscape.





STUDENT CLUB ACTIVITIES

MANAGEMENT CLUB ACTIVITY: TRIVIZARD CHAMPIONSHIP 2025

The Triwizard Championship 2025 - a Harry Potter themed quiz competition, was successfully conducted in the Seminar Hall on 19th September 2025 by the Management Club of the Institute of Health Management Research (IIHMR), Bangalore. The event was a combination of creativity and management concepts and it provided the students with an interesting platform to apply their strategic thinking, problem solving skills and team work in a fun and experiential manner.

Mr. Shamsuzzaman Ansari, Associate Professor and the Coordinator of the club, and Dr. Deepashree M R, Assistant Professor and co-coordinator of the club, conducted the event along with the student members of the club who ran the show. Their constant encouragement and guidance were also instrumental in developing the framework and a seamless implementation of the competition. Another significant contributor to the success and enthusiasm of the programme was the active encouragement and support given by Dr. Sarala, Dr. Shalini, Dr. Rajeshwari and Dr. Sarthak.



The competition was based on the Harry Potter magic world, and its three rounds were aimed at evaluating various skills. The Sorcerer Quiz put the participants knowledge to the test on general knowledge, management concepts, creativity and fast decision making. The teams were competitive and high energy based and thus the event was competitive and intellectually stimulating. The Triwizard Championship 2025 was a successful event, and it has taught the students to work together, be leaders and think innovatively.

COMMUNITY CLUB ACTIVITY: SWACHHATA PAKHWADA 2025

A set of activities were conducted by the Community Club of IIHMR Bangalore on the occasion of the national Swachhata Pakhwada 2025, during 1-15th September 2025. Concomitant to the social responsibility, community involvement approach, and social awareness of the institution, the events were to inculcate values of cleanliness, hygiene, sustainability, and environmental responsiveness on the students.

The 15 days campaign incorporated a mixture of on campus and community-based programs, all of them aimed at encouraging an active involvement, imagination and civic citizenship. With the active participation of faculty members, staff members and motivated student volunteers the activities were successfully completed.

Poster-making Competition

The students were invited by Community Club to join a Poster Making Competition with the theme of "Swachhata is Everyone Business". The competition challenged students to be creative and create awareness on cleanliness, waste management and responsible citizenship. Students were invited to create meaningful visual messages that would show the relevance of being hygienic, responsible in the community, and individual role in creating a cleaner environment.

A total of 20 students participated in the competition and the posters were displayed on the student activity board on campus. First place: Ms. Kankana Dhar, Dr. U Likitha, Ms. V Priyanka, Second Price: Jananie P, Third Price: Mridhula R, Sonu Patel, Navatha, Special Price: Srusti, M Niharika

Campus Cleanliness Drive (Shramdaan) on 12th September, Community Club held a massive Cleanliness Drive on campus, in which the faculty, staff, and students actively participated to clean up the designated areas in campus. Participants were involved in the cleaning of litter as well as the separation of dry and wet waste, clearing of streets, and maintenance of clean environments. The activity did not only help in maintaining the campus clean but also enhanced collaboration and group accountability. The motive was the spirit of Shramdaan voluntary work in the interest of the community. The students were able to have hands-on experience in environmental stewardship and cultivating the importance of shared spaces.

Community Tree plantation drive on 12th and 13th September 2025, the club had organized Tree Plantation



Programme at Koppa village in partnership with the local Gram Panchayat. The village authorities had graciously given up a piece of land upon which to create a mini forest by planting saplings. Planting of saplings such as Jackfruit, Mango, and Butterfruit among other native species was done by faculty members, staff, and students. The officials of Grama Panchayat, the elected officials and community members actively took part by helping to dig the pits, plant saplings, and prepare the soil. Mr. Manjunath and Mrs. Jayalakshmi the elected PRI members of Koppa village were present along with the panchayat officials Mr. Babu and Mr. Rajappa (waterman).

Mr. Manjunath urged the participants to preserve the saplings until they grow up and improved the need to establish more eco-friendly social settings. The plantation drive had about 55 students and the Community club coordinators Dr. Subodh Satheesh and Gowthamghosh B., faculty members taking part. Which Enhanced community institution cooperation, Ecological sustainability, Promoted long term accountability in the cultivation of green areas.

The Swachhata Pakhwada 2025 events and programs conducted by the Community Club managed to inculcate a strong feeling of civic responsibility, environmental awareness, and community involvement in the minds of students. Cleaning up the city and planting trees through posters, clean-up drives, and planting activities helped the participants not only to improve the institutions and society but also gained the necessary skills and knowledge of teamwork and leadership.

LITERARY CLUB: KHEL KAHANI 2025 - THE TALES ON TAP AND THE PRIDE GAME.

On 12th September 2025, at the Amphitheatre and Seminar hall, Khel Kahani 2025 - Tales on Tap and The Pride Game was organized by the Literary Club of IIHMR Bangalore. The event was created to make students more creative, develop communication skills and foster collaboration in an engaging and dynamic way that had to combine storytelling, playing a game, and interacting with the community. The programme was organized on the leadership approach of Dr. Isha Maharana and Dr. Rajeshwari B S and it was designed to provide an energetic atmosphere to the students where they were able to share their feelings, form a sense of confidence, become stronger as a team and enjoy the linguistic and cultural fantasy. Faculty, students and organizers got to meet during the programme and it was an experience to be remembered as a common experience and there was a focus on encouraging expression and creative involvement that the club has.

Tales on Tap: Storytelling Contest event was opened with the Tales on Tap interactive story telling competition, and here the participants were given unexpected prompts, which triggered spontaneous creativity. The students created very strong articulation and creative thinking with good humour, emotion, fantasy, and original interpretations of the narrative. It was a spirited experience with every presenter having his or her own distinctive touch to the challenge and the faculty coordinators enjoyed the brevity, creativity and confidence of the storytellers. The teams who had won the competition Team 1: Shreya T, Taslima, Shalini, Vaishnavi, Team 2: Anurag, Sailee, Sneha Deepak, Gunjan.

Creative Team Competition: The Pride Game was the following segment and focused on thinking quickly, working as a team, and coordination. Teams were challenged by solving a sequence of entertaining and problem-solving activities that challenged their ability to make decisions collectively and to be flexible. The exercises fostered teamwork, healthy competition, and teamwork problem solving, and promoted effective communication by participants during periods of time constraints. The students were eager to take part and their response in each round was very energetic and exciting. Their inventiveness, collaboration, and participation made them miscellaneous at the contests.





CULTURAL EVENTS

ADAY OF DANCE AND WELLNESS:

“IIHMR Bangalore Marks Zumba Day with Energy, Rhythm, and Campus-wide Enthusiasm”

IIHMR Bangalore celebrated Zumba Day on 31st October 2025 at the institute's amphitheatre, bringing together students, faculty, and staff for an evening dedicated to fitness, movement, and joy. Guided by Dr Jyoti Vijay, the event aimed to promote physical well-being and mental wellness, while encouraging the community to adopt regular fitness practices as part of a healthy campus lifestyle. The celebration transformed the amphitheatre into a lively space filled with music and energetic choreography. Participants came together with enthusiasm, reflecting the institute's ongoing commitment to holistic wellness. Zumba Day served not only as a fitness activity but also as an opportunity for community bonding, stress relief, and positive engagement.



A major highlight of the event was the presence of Mr Vedh, a well-known Zumba instructor and social media influencer. His electrifying stage presence, engaging teaching style, and motivational energy set an inspiring tone for the session. Students and faculty members actively participated, filling the atmosphere with laughter, excitement, and shared enthusiasm. The upbeat music and collective energy made the session both enjoyable and rejuvenating. Many participants expressed how refreshing the event felt amid their academic schedules, appreciating the break as a chance to recharge.

IIHMR BANGALORE'S NAVARATRI CELEBRATION:

“In the Glow of Garba and Grace of Goddess Durga”

The Institute of Health Management Research (IIHMR), Bangalore, was immersed in devotion, tradition, and vibrant cultural expressions as it celebrated Navaratri on Friday, 26th September 2025, at the institute's badminton court. The celebration, witnessed enthusiastic participation from students and staff, making it a memorable cultural event of the academic year 2025–27.

Organised as part of the institute's cultural activities, the Navaratri celebration aimed to commemorate the victory of Goddess Durga over Mahishasura, symbolising the triumph of righteousness (dharma) over negativity (adharma). The event also sought to promote awareness, understanding, and appreciation of India's rich traditions, values, and cultural heritage among students.

The celebration commenced with the ritualistic worship of Goddess Durga, which created a serene and spiritual ambience across the campus. Faculty members Dr. Falguni Pandya and Dr. T. Bharthi guided the proceedings and emphasized the cultural and spiritual significance of Navaratri in Indian tradition.

The devotional opening was followed by a series of energetic and graceful dance performances presented by first- and second-year students, showcasing India's cultural diversity. The first performance featured Bathukamma, a traditional folk dance from Telangana, celebrated with floral arrangements and rhythmic movements. This was followed by Garba, the vibrant circular dance form from Gujarat traditionally performed during Navaratri, which filled the venue with festive enthusiasm. The third performance, Dhunuchi, a popular ritual dance from Bengal performed during Durga Puja, captivated the audience with its devotional intensity and expressive movements. The Navaratri celebration at IIHMR Bangalore not only strengthened cultural bonds among the academic community but also reinforced the institute's commitment to holistic education by nurturing cultural awareness alongside academic excellence.





NATIONAL NUTRITION WEEK CELEBRATION AT IIHMR BANGALORE HIGHLIGHTS HEALTHY LIVING AND COMMUNITY ENGAGEMENT

IIHMR Bangalore celebrated National Nutrition Week on 19th September 2025 with a series of educational and community-oriented activities aligned with the theme “Swasth Nari Sashakt Parivar Abhiyaan,” inspired by the 8th Rashtriya POSHAN Maah of the Ministry of Health and Family Welfare, Government of India. The event brought together around 200 participants at the institute's badminton court and was coordinated under the guidance of Dr Jyoti Vijay, Assistant Professor.

The celebration aimed to promote awareness about nutrition, healthy eating habits, and preventive health practices. It emphasised the importance of balanced diets and nutritious food choices as part of building healthier communities. By encouraging active involvement from students and residents, the programme reinforced the broader national mission of strengthening family health through informed dietary behaviours.



The first major component of the celebration was a Community Awareness Program held on 6th September 2025. Students and faculty visited a nearby community from 10:00 am to 2:00 pm to conduct an awareness campaign on nutrition and healthy living. The objective was to educate residents on essential topics such as the role of nutrition in daily life, the importance of fruits, vegetables, and balanced meals, the health impacts of junk and processed foods, and best practices for hygiene and safe food handling. Students designed informative posters and delivered engaging speeches to connect effectively with community members. Their efforts were well-received, fostering awareness and motivating residents to adopt healthier eating habits.



The second highlight of the celebration was the Food Fest titled “Sehat-e-Zaika,” conducted on 19 September 2025 from 12:00 pm to 1:30 pm at the IIHMR Bangalore campus. The event was inaugurated by the President and Vice President of Hulimangala village, whose presence added a sense of pride and community collaboration to the occasion. The fest showcased nutritious, flavourful, and culturally diverse dishes prepared by students and faculty. The initiative blended creativity with health education by demonstrating how taste and nutrition can coexist in everyday cooking.

National Nutrition Week at IIHMR Bangalore succeeded in combining community outreach with campus-based activities, creating a holistic learning experience for students while positively influencing public health awareness. The event strengthened the institute's commitment to promoting healthier lifestyles and aligned closely with national goals for nutrition and family well-being.



RESEARCH AND PUBLICATIONS

IMPROVED SERVICES AND CERTIFICATION FOR 6 PUBLIC HEALTH CENTRES IN THOOTHUKUDI DISTRICT, TAMIL NADU (VILATHIKULAM & PUDUR BLOCKS)

The NQAS Preparedness Project, funded by HCL Foundation-Samuday, is focused on strengthening the quality of services across six Primary Health Centres (PHCs) in Thoothukudi district. The initiative aims to build a self-sustaining model of quality care by improving clinical processes, documentation standards, patient safety, and facility management in alignment with the National Quality Assurance Standards (NQAS).

To ensure a strong foundation, comprehensive gap assessments were carried out in each PHC to identify strengths, gaps, and priority improvement areas. Based on these findings, detailed Quality Improvement Plans (QIPs) and action frameworks were developed, covering human resources, equipment needs, infection control, facility safety, and patient care processes.

A key milestone has been the revision of all 12 departmental Standard Operating Procedures (SOPs) across PHCs. These SOPs form the backbone of standardized, high-quality service delivery. To improve patient communication and health awareness, the project has developed extensive IEC/BCC materials, including 130 posters for Emergency, Accident, and Out-Patient departments, with additional materials for the Labour Room and Laboratory. These materials support patient education while strengthening compliance with quality guidelines.



Strengthening documentation has been a major focus on department-wise reviews of OPD, IPD, Labour Room, Laboratory, OT, Accident & Emergency, and maintenance registers have been initiated to ensure accuracy and completeness. Key NCD-related registers, daily reporting formats, and policy documents such as Antibiotic Policy, Consent Policy, and Condemnation Policy have also been standardized as per NQAS requirements. Digital quality monitoring has begun through the SaQsham portal, with KPI checklists initiated at Pudur and Perilovanpatti PHCs. Case sheets and departmental records are being regularly reviewed and uploaded, ensuring transparent performance tracking. Facility preparedness work has included mapping and renewal of 13 essential certifications and licenses required under NQAS criteria.

As part of building a culture of continuous improvement, Quality Committees have been formally established in all six PHCs. Departmental tools and forms have been reorganized and distributed to standardize reporting and service delivery. Ongoing coordination with district authorities including consultations with the District Health Officer, ensures alignment with government priorities and smooth project implementation.

Through these combined efforts, the project is creating strong foundations for improved patient safety, efficient systems, and high-quality clinical care, moving the six PHCs closer to NQAS certification and fostering a sustainable model of excellence in primary healthcare for the communities of Vilathikulam and Pudur blocks.



IMPROVING THE HEALTH STATUS OF THE ADULT POPULATION THROUGH LIFESTYLE AND NUTRITION AN INTERVENTIONAL STUDY IN THOOTHUKUDI DISTRICT (VILATHIKULAM & PUDUR BLOCKS)

This quarter marked significant progress in our ongoing intervention to improve adult health through lifestyle and nutrition, funded by the HCL Foundation. Baseline data collection was successfully completed across all 60 villages under six PHCs using the m-Health Live application, covering 1,629 households through systematic social mapping and anthropometric measurements. This comprehensive baseline now serves as a foundation for targeted NCD prevention and management efforts.

Community engagement remained a strong focus, with 29 awareness sessions conducted between July and October, reaching 836 adults across intervention villages. These sessions emphasized awareness on diabetes and hypertension, activity-based physical activity, healthy cooking demonstrations, portion control, and peer storytelling. Participation steadily increased each month, supported by a reward system encouraging the use of millets, pulses, and other nutritious local produce. In September alone, nine sessions were conducted, engaging 290 male and female participants.

To strengthen community ownership, mobilization visits and stakeholder meetings were conducted across more than 20 villages. The team engaged Medical Officers, Panchayat leaders, village clerks, NCD staffs, yoga instructors, and local street play groups to prepare for Patient Support Groups (PSGs), yoga sessions, and health-themed cultural activities. Additionally, the team participated in government-led PSG meetings, gaining insights into service delivery including screenings, physiotherapy, consultations, and medicine distribution and aligning future PSG activities with Block Medical Officers.



Information, Education, and Communication (IEC) efforts were significantly enhanced this quarter. Fact boards on salt, sugar, and oil (adapted from ICMR–NIN) were translated into Tamil, and new audio-visual materials were developed with Tamil subtitles focusing on healthy breakfast options, beverage habits, portion sizes, sleep hygiene, and active living. These multi-format IEC tools improve accessibility for diverse literacy levels.

District-level coordination included a project review meeting with the District Health Officer at Kovilpatti, ensuring alignment for the next phase of implementation. Capacity-building activities were also undertaken, including orientation for field staff and training on NPCDCS guidelines related to NCD prevention, early detection, and community-based engagement approaches.

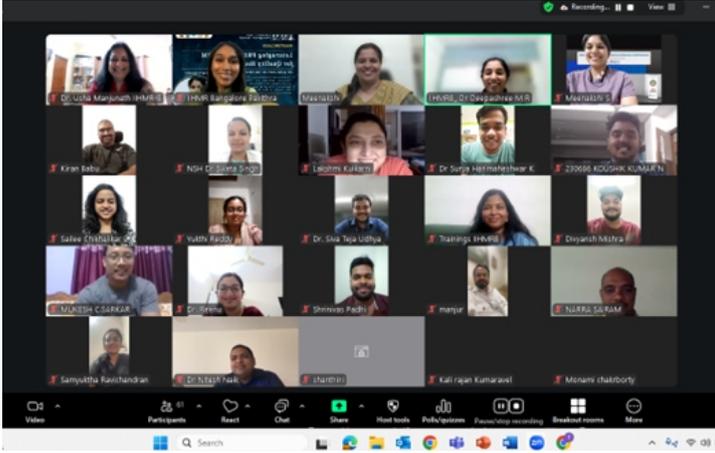
Overall, this quarter's work strengthened awareness, improved early detection readiness, expanded community partnerships, and set the stage for structured patient support initiatives. With growing participation and strong multi-stakeholder coordination, the project continues to make meaningful strides toward reducing NCD risks and promoting healthier lifestyles across intervention villages.





CENTRE FOR LEARNING & DEVELOPMENT

MASTERCLASS ON PREM & PROM | ENHANCING PATIENT-CENTRED CARE

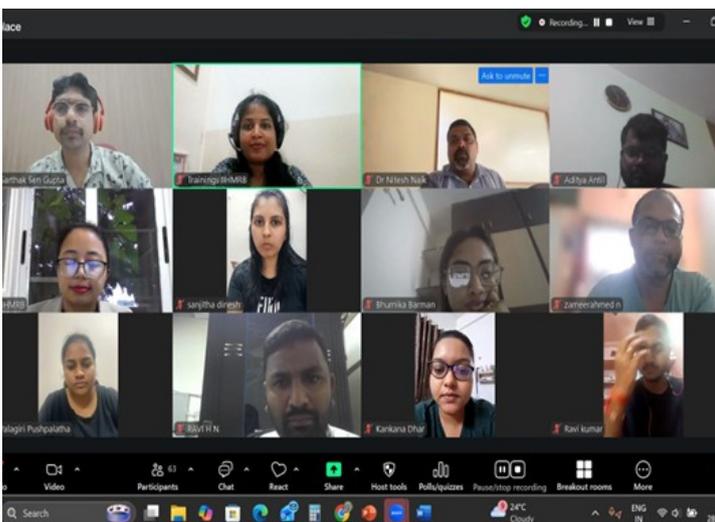


IIHMR Bangalore, delightedly hosted an insightful Masterclass on Patient Reported Experience Measures (PREM) and Patient Reported Outcome Measures (PROM) as a part of 3 months -Hospital Quality and Patient Safety Certificate program, on 2nd September, led by resource person Ms. Meenakshi Anchalia, Quality Lead with over 72 Participants.

The session focused on strengthening patient-centred healthcare delivery by understanding patient experiences and outcomes beyond clinical indicators. Participants gained practical perspectives on Importance of PREM & PROM in quality improvement, Designing effective patient feedback mechanisms and Translating insights into actionable improvements.

A big thank you to Ms. Meenakshi Anchalia for sharing her expertise and inspiring us to build a stronger culture of quality and care excellence.

LEVERAGING CYBERSECURITY & DATA PRIVACY FOR HEALTHCARE SECTOR



A Webinar on “Leveraging Cybersecurity & Data Privacy for Healthcare Sector” was successfully conducted on 28th October 2025. A total of 87 participants joined us from diverse healthcare and technology backgrounds, making this session insightful and interactive.

A big thank you to Dr. Sarthak Sen Gupta, Assistant Professor, Institute of Health Management Research, Bangalore (IIHMR-B), for delivering an engaging and informative session on safeguarding healthcare data in the digital age.

TRANSFORMING HEALTHCARE TO DATA, AI & SMART SYSTEMS – EMPOWERING CHANGE MAKERS!

LIVE WEBINAR

IIHMR BANGALORE | Institute of Health Management Research

Webinar on
Transforming Healthcare Through Data, AI & Smart Systems
- Empowering Change Makers

Industry Experts

- Dr. Uma Nambiar**
CEO, Bagchi Parthasarathy Hospital
- Dr. Bharat Gera**
Human Centric Healthcare Ecosystem
- Dr. Sundara Kumar**
Medical Informatics Officer, GKNM Hospital
- Dr. Ashlesha Tawde**
Associate Professor, IIHMR

Moderator
Mr. Sachin S. Bhat
Assistant Professor, IIHMR Bangalore

06:00pm - 07:30pm
29 October 2025

Organized by:
IIHMR Bangalore - Centre for Learning & Development
Mode: Virtual (Live Online)

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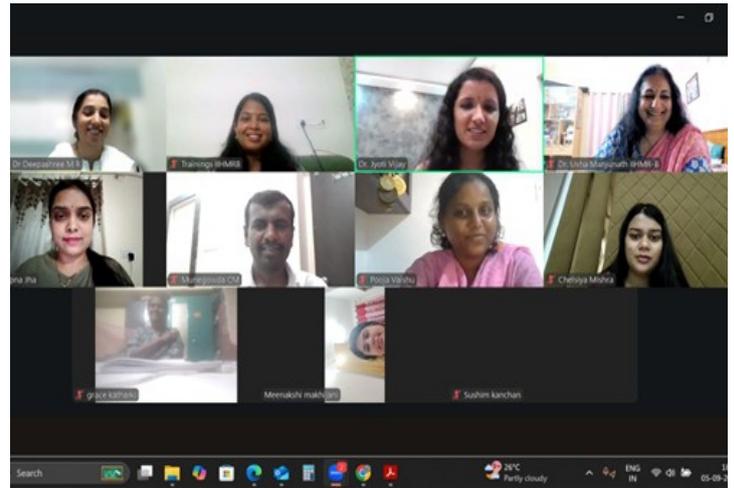
IIHMR Bangalore successfully conducted the insightful webinar on “Transforming Healthcare to Data, AI & Smart Systems – Empowering Change Makers!” on 29th October 2025, with active participation from 65 attendees representing diverse domains of healthcare and technology. The engaging session was moderated by Mr. Sachin S Bhat, Program Manager - ADMIRE, IIHMR Bangalore, and featured a distinguished panel of experts who shared their valuable perspectives on digital transformation and innovation in healthcare. The session focused on, today's rapidly evolving healthcare landscape, digital transformation is not just an advancement - it is a necessity. With emerging technologies such as Data Analytics, Artificial Intelligence, and Smart Health Systems, healthcare organizations now can redefine how care is delivered and experienced. The eminent speakers like Dr. Uma Nambiar, CEO, Bagchi Parthasarathy Hospital, Dr. Bharat Gera, Founder, Human Centric Healthcare Ecosystem, Dr. S. Sundara Kumar, Medical Informatics Officer, GKNM Hospital, and Major Dr. Ashlesha Tawde Kelkar, Associate Professor enlighten the webinar with their words of wisdom.

MDCH COHORT PROGRAM



The MDCH Cohort -2 immersion program - 3rd day on Sep 6th, 2025, journey was further enriched with hands-on training in Data Analytics and Visualization, equipping participants with practical skills for the digital health ecosystem. The closing ceremony was graced by Dr. Kedar CS, IAS (Retd.) - Director, Strategic Alliances and Institutional Engagement at Bionic Yantra, thought-provoking insights from Mr. Praveen Srivatsa - Director - Thinker Foundation, on the role of AI-driven decision making in the future of healthcare, who presented the certificates to participants, marking the successful completion of the program. Mr.Sachin Bhat the Program coordinator, Dr. Deepashree, In-charge of Centre for Learning and Development and Dr. Usha Manjuanth, Director addressed the participants.

PUBLIC HEALTH NUTRITION -PROGRAM MANAGEMENT



After an enriching 4-month learning journey, the Public Health Nutrition – Program Management (PHNPM 2025) program has officially concluded. The Program commenced on the 14th of May and finally concluded on the 5th of September 2025. This program brought together passionate professionals committed to advancing nutrition outcomes through stronger program planning, implementation, and evaluation. Participants enhanced their capabilities in addressing public health nutrition challenges through evidence- based strategies and effective management skills. Eleven participants successfully completed the program and have been awarded completion certificates. Dr.Jyoti Vijay, Assistant Professor has coordinated the program, Dr.Deepashree In-charge centre for learning and development and Dr.Usha Manjunath graced the occasion.

Certificate Program in
PUBLIC HEALTH NUTRITION-COHORT 3
October, 2025
06:00pm - 08:00pm
Karnataka Medical Council Approval
3 Credit Hours Training Program
www.iihmbangalore.edu.in



BOOK REVIEW



BOOK TITLE:
SENSEMAKING – THE POWER OF THE HUMANITIES IN THE AGE OF THE ALGORITHM
(Author: Christian Madsbjerg, Hachette Books, 2017, pp.240)

Ms. Tanisha M.
PGDM Batch 2025-2027

As students, we often hear about how “Data is the new currency”. Everywhere we look whether in business, science, or even social media, numbers and algorithms seem to run the world. But while reading Sensemaking by Christian Madsbjerg, I realized something important that numbers alone cannot explain the whole story of human life.

Madsbjerg argues that while data and algorithms are useful, they cannot replace human judgment, culture, or creativity. He introduces the idea of “sensemaking,” which is basically about looking at the bigger picture and understanding people through their culture, values, traditions, and lived experiences. Instead of only focusing on “thin data” like survey results or percentages, he asks us to pay attention to “thick data”—the kind of insights we get from observing people in real life, listening to their stories and noticing the small details that numbers might miss.

What struck me most were the real-life examples he shares. For instance, car companies trying to redefine luxury didn't just rely on market research. They went into people's homes, spoke with families, and studied how they lived. From these conversations, they discovered what “luxury” really meant to people, beyond just price tags or features. There's also the story of a hostage negotiator who succeeded not by following a script, but by reading the emotions and culture of the people he was dealing with. These stories reminded me that sometimes the answers we are looking for come from paying attention to human behavior, not just from analyzing spreadsheets.

The book is organized around the principles of sensemaking, such as putting culture before individuals, preferring real-world observation over artificial experiments, and treating creativity as more valuable than rigid formulas. For me, these principles read less like rules and more like reminders that in our race toward technology, we shouldn't forget the human touch.

I think the main message is very timely for us as students. We are growing up in a world where artificial intelligence and big data are celebrated everywhere. Reading this book made me pause and think: will all decisions in the future be reduced to numbers? And if so, what will happen to empathy, creativity, and cultural understanding?

For me, Sensemaking was not just about business or technology, it was about rethinking how we understand people. As a student, I found it refreshing because it gave me confidence that subjects like history, literature, philosophy are not outdated. In fact, they are more relevant than ever. The ability to interpret culture, to read between the lines, and to make sense of human behavior is just as important as coding or analyzing data.

In the end, Madsbjerg leaves us with a simple but powerful message: the future may be full of algorithms, but it will still be deeply human. I would recommend this book to students who feel caught between science and the humanities. It shows us that both are needed to truly understand the world.





Study Raises Concerns Over Beta-Blocker Use in Women After Heart Attacks

A type of drug used to help treat heart attacks does not work on most patients and may contribute to hospitalization and death for women, new research has found. Beta-blockers are medicines that are used to lower blood pressure and cause the heart to beat more slowly and with less force. However, a study published Saturday in the European Heart Journal found that women with little heart damage after suffering heart attacks who were treated with beta-blockers were significantly more likely to have another heart attack or be hospitalized for heart failure further down the line.

Read more here: <https://www.independent.co.uk/news/health/beta-blockers-heart-attack-women-study-b2817180.html>

Kerala Doctors Achieve Global First in Treating Rare Dual Brain Infection

Kerala's health sector has achieved a remarkable feat, successfully treating a 17-year-old boy suffering from a simultaneous infection of amoebic meningoencephalitis and Aspergillus flavus. This extraordinary achievement represents the first known case worldwide where a patient with both infections has made a full recovery, showcasing groundbreaking dual infection treatment. Health Minister Veena George announced this significant medical breakthrough, emphasizing the rigorous efforts of the medical teams.

Read more here: <https://www.ocacademy.in/blogs/kerala-doctors-dual-infection-treatment-recovery/>

Apollo Hospitals Expands Global Presence with Strategic Healthcare Agreement in Iraq

Apollo Hospitals on Saturday signed an agreement with the Ministry of Interior, Republic of Iraq, to manage and operate its Internal Security Force Hospital. Under the agreement, Apollo Hospitals will provide advanced medical care to Iraq's security forces and their families, further strengthening India's healthcare footprint overseas. "Apollo Hospitals has signed a strategic agreement with the Ministry of Interior, Republic of Iraq, to manage and operate the Internal Security Force Hospital," said a press release. Through this collaboration, Iraqi security forces personnel are expected to gain access to world-class treatment and specialised care, it added.

Read more here: <https://medicalbuyer.co.in/apollo-hospitals-to-operate-internal-security-force-hospital-in-iraq/>

Nobel Prize in Medicine Awarded for Breakthrough Discoveries in immune Tolerance

Stockholm: Mary E. Brunkow, Fred Ramsdell, and Di Shimon Sakaguchi won the Nobel Prize in medicine on Monday for their discoveries concerning peripheral immune tolerance. Brunkow, 64, is a senior program manager at the Institute for Systems Biology in Seattle. Ramsdell, 64, is a scientific adviser for Sonoma Biotherapeutics in San Francisco. Sakaguchi, 74, is a distinguished professor at the Immunology Frontier Research Centre at Osaka University in Japan. The immune system has many overlapping systems to detect and fight bacteria, viruses and other bad actors. Key immune warriors, such as T cells, get trained on how to spot bad actors. If some instead go awry in a way that might trigger, autoimmune diseases they're supposed to be eliminated in the thymus - a process called central tolerance.

Read more here: https://health.economictimes.indiatimes.com/news/industry/nobel-prize-in-medicine-goes-to-3-scientists-for-work-on-human-immune-system/124340841?utm_source=most_read&utm_medium=latestNews

AliveCor Launches AI-Powered Handheld 12-Lead ECG System in India

The handheld 12-lead ECG device detects 35 cardiac determinations, including acute myocardial infarction and cardiac ischemia, and is designed for healthcare professionals liveCor has announced the launch of its Kardia 12L electrocardiogram (ECG) system in India. The company stated that the device is the world's first AI-powered, handheld 12-lead ECG system with a single-cable design. It is designed for use by healthcare professionals and has received approval from the Central Drugs Standard Control Organisation (CDSCO). According to AliveCor, Kardia 12L can detect 35 cardiac determinations, including 14 arrhythmias and 21 morphologies. These include conditions such as acute myocardial infarction (MI) and the most common types of cardiac ischemia.

Read more here: <https://www.expresshealthcare.in/health-pulse/alivecor-launches-ai-powered-kardia-12l-handheld-ecg-system-in-india-with-cdsco-approval/450479/>

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