

Minutes of the 39th meeting of the Board of Governors of IIT Hyderabad (IITH)

Date and time: 14th June 2022 at 11:30 Hours

Venue: Board Room, IIT Hyderabad, Kandi 502 284, Sanga Reddy District.

The Thirty Ninth Meeting of the Board of Governors of IITH was held on June 14, 2022.

The following members were present:

Dr. B.V.R. Mohan Reddy	Chairman
Shri. Rakesh Ranjan, IAS	Additional Secretary, MoE, Member (Official comments received vide F.No.11-8/2018-TS-1 dated 07.06.2022)
Prof Vinod Krishan	Member
Dr Prema Ramachandran	Member
Prof M Lakshmi Kantam	Member
Prof B S Murty	Director, IITH, Member
Prof. Saptarshi Majumdar	Member
Prof. Shiv Govind Singh	Member
Cmdr Manohar Nambiar (Retd.)	Registrar, IITH, Secretary

Smt. V Karuna, IAS, representing the Govt of Telangana, did not attend the meeting.

At the outset, the Director, IITH welcomed the Chairman and Members of the BoG to its 39th Meeting.

Item No. 39.1: Confirmation of the Minutes of the 38th Meeting of the Board of Governors

The Director stated that the Thirty Eighth Meeting of the Board of Governors of the Institute was held on 16th February 2022, and a copy of the Minutes of the Meeting has already been circulated to the Members.

Comments of AS (TE), MoE: May be considered.

The minutes of 38th board meeting of IITH held on 16th February 2022 are confirmed.

Item No. 39.2: Presentation by two faculty members on innovative research

Presentation by Dr. Sushmee Badhulika: Dr. Sushmee Badhulika made a brief presentation about her research in the area of flexible and wearable electronics. She explained the need for flexible nanoelectronics and the role of substrates in developing high performance devices. She then discussed some of the devices/prototypes that her lab (Flexible Electronics and Nano Devices Laboratory) at IITH has developed in the last few years. One of them was a wearable temperature sensor based on Graphene and another was an electronic skin (e-skin) using natural rubber. She also discussed the development of smart textiles based wearable applications useful in physiological body monitoring applications. She explained the mechanism of their operation and the scope of applications of these devices in real life applications. Her group also works on smartphone enabled health monitoring systems wherein nanodevices are integrated with the smartphone for smart, wireless applications. She presented some of the recently developed prototypes in her lab which are multifunctional in nature and are biocompatible for wearable applications. In the last part of her talk, she discussed the ongoing work in the area of self-powered devices that her lab has been actively working on. These include biomechanical energy harvesting for powering various kinds of sensors.

The Chairman of BoG, Dr. Mohan Reddy congratulated Dr. Sushmee on the excellent research work being carried out by her. He asked the details of her academic background to understand how she does this interdisciplinary work and queried about the feasibility of commercializing her work. Dr. Sushmee stated that she has a startup incubated in the ITiC at IITH called Affocuris Technologies. The Chairman expressed his interest in knowing about the scope for some of the products being commercialized. Dr. Sushmee replied that they are presently partnering with two industries and have plans of taking these devices for commercial scale up in the future.

During the discussion, Prof Lakshmi Kantam queried about the availability of materials such as MoS₂, ZnSnO₃ and graphene etc. being used in the research and Dr. Sushmee stated that the materials are being synthesized in the lab itself. She further enquired about the synthesis methods that are being used for the same. Dr. Sushmee replied that she uses various techniques such as Hydrothermal, CVD etc to grow them in her lab.

Prof Vinod Krishan talked about power-saving devices and developing bio sensors. She particularly appreciated how Dr. Sushmee also looks into the aspect of power consumption of these devices since that is very crucial these days. Dr. Sushmee replied that she has been working on this aspect for the last two years and shall continue to work on it to make self-sustainable devices in the future.

Dr. Prema Ramachandran talked about the response to therapy- public health opportunity, development of accurate BP measuring equipment, accurate self-monitoring of Blood sugar, and accurate measurement of Haemoglobin. She suggested that Dr. Sushmee, given her excellent research and expertise, should definitely work towards improving the public health in general in India. She highlighted the need for diabetes detection which would benefit millions across the country. Dr. Sushmee thanked her for the excellent suggestions and told the committee that her research team is already working towards these end goals.

Presentation by Dr. Avinash Eranki: Dr Avinash Eranki gave a brief presentation on ultrasound technologies for affordable healthcare. He stated that patients diagnosed with solid tumours continue to grow each year with Asia projected to have higher incidence compared to other countries. Patients suffering from oligometastatic relapsed or refractory solid tumours face unacceptably poor prognosis, with outcomes not improving even with a multimodal approach therapy including surgical resection, chemotherapy, and radiation. Furthermore, breast cancer is one of the most common cancers globally, with over 627,000 deaths each year.

High intensity focused ultrasound (HIFU) is a non-invasive surgical and ablative technology that focuses ultrasound waves inside the tumour, increasing temperature to about 65°C, and causes ablative necrosis and immediate tissue death. HIFU has been tested and approved in several clinical indications such as uterine fibroids, prostate tumours, osteoid osteoma, and essential tremors, amongst several others. However, HIFU thermal ablation can cause temperature rise in critical structures and tissues surrounding the tumours, potentially leading to iatrogenic effects, limiting its applicability in treating solid tumours in patients. In addition, thermal ablation denatures tumour associated antigens, and immediately leads to thermal fixation of tissue at the treated region with a reasonable margin. This dampens trafficking of immune cells including into the treated tumour, further delaying the cascade of systemic immune events for potential tumour regression.

Boiling histotripsy (BH) is a paradigm shifting technology developed and characterized on a clinical HIFU system by Dr. Avinash. BH is a different form of HIFU, that is capable of mechanically fractionating tumour tissues with high spatial precision, and minimal or no thermal effects to adjacent tissues. This enables the trafficking of tumour associated antigens to draining lymph nodes for effective priming and activation of T-cell pathways leading to tumour regression.

Dr Avinash stated that his team has also developed a novel ultrasound imaging-guided HIFU device with a smart software algorithm capable of hands-free therapy of breast tumours. This device consists of a robotic arm holding an imaging and therapeutic ultrasound device. The therapeutic ultrasound transducer will perform therapy once the target is locked by the imaging transducer. The entire system is placed on a mobile cart making it a mobile platform that can be easily manoeuvred in the clinic for therapies. This device can also perform large volume 3D ultrasound imaging of anatomical locations, that otherwise may not be visible in a single image of ultrasound. He stated that they have currently filed at least three Indian patents to protect the IP of this device and enable to attract a series 'A' funding. In addition, they have initiated the world's first clinical trial in collaboration with Basavatarakam Indo-American Cancer Hospital and Research Institute to compare TNBC tumour tissue with blood samples in patients.

The Chairman of BoG, Dr. Mohan Reddy queried about the commercialization of the research work being carried out and Dr. Avinash replied that he is working on strengthening the supply chain systems before launching the product. Dr. Avinash also emphasized the need to develop technology in India to help the Indian tech ecosystem. In addition, Dr. Avinash pointed out the need for translating these systems in India to understand the effect of such therapies on the Indian solid tumor population.

Dr. Prema Ramachandran stated that most of the products envisioned will have a long-term effect and we need to be prepared for the long haul. Dr. Avinash agreed that this is a long haul especially to assess the efficacy of such therapies in breast tumors and other solid tumors.

Prof Saptarshi appreciated the work being carried out and the clarity in presenting various aspects of the unknown in the process of research development. This was brought up while emphasizing the need for a multi-faceted approach in understanding and tackling refractory solid tumors. Dr. Avinash also mentioned that such a team can be built mostly from experts within IITH, and current collaborators outside IITH.

Comments of AS (TE), MoE: No Comments.

The Board appreciated the work of Dr. Sushmee Badhulika & Dr. Avinash Eranki, and their contribution in carrying out collaborative research of relevance to the community and bringing out useful products.

Item No. 39.3.1: Proposal for conversion of certain unfilled vacancies to a lower level within the same cadre

The Director stated that, after assessing the staff & functional requirements at different levels across the cadres, the Institute proposes for conversion of 02 vacancies each of the following existing posts i.e., Senior Technical Officer (Pay level-11) to Technical Officer (Pay Level-10), Sports Officer (Pay Level-10) to Physical Training Instructor (Pay Level-06) and Junior Engineer (Civil) (Pay Level-06) to Junior Technician (Civil) (Pay Level-03). The domain of the vacancies after conversion will remain the same except for a change in the pay level (reduction in level of pay) and the proposed conversion does not carry any additional financial implication.

Comments of AS (TE), MoE: May be considered. However, institute to strictly follow the reservation norms of GoI while making recruitment.

Board approved the conversion of unfilled vacancies to a lower level within the same cadre as presented.

Item No. 39.3.2: Proposal for advertisement of non-Teaching vacancies (NF-11)

The Director stated that, after NF-9 recruitment and considering the vacancies that have arisen due to the resignations; the Institute proposes to advertise for the 31 unfilled vacancies, which are within the sanctioned strength. Further, the tabulated details of the unfilled vacancies were presented to the members (i.e., Chief Library Officer (01 post), Assistant Registrar (01 post), Technical Officer (04 posts), Section officer (01 post), Asst. Engineer-Electrical (01 post), Technical Superintendent (04 posts), Junior Engineer-Electrical (02 posts), Physical Training Instructor (02 posts), Junior Technician (09 posts) and Multi Skill Assistant Gr-I - Gen-5; Electrical-1 (06 posts).

He also stated that, the 31 unfilled vacancies include the proposed conversion of 02 Sr. Technical Officer (Level-11) vacancies to Technical Officer (Level-10), 02 Sports Officer (Level-10) vacancies to Physical Training Instructor (Level-6) and 02 Junior Engineer-Civil (Level-6) vacancies to Junior Technician-Civil (Level-3).

Comments of AS(TE), MoE: May be considered. However, institute to strictly follow the reservation norms of GoI while making recruitment.

Board accorded its approval for advertisement of non-teaching staff vacancies (NF-11), as presented.

Item No. 39.3.3: Proposal for grant of Post Graduate Allowance to the Medical Officers of the Institute

The Director stated that, as per the OM No. A.45012/02/2017-CHS.V dated 29 Aug 2017 of Ministry of Health & Family Welfare, Govt. of India; Central Health Service Officers are in receipt of the Post Graduate allowance in addition to other applicable allowances as per the provision. The Post Graduate allowance will be paid at the rate of Rs. 2250/- per month and Rs. 1350/- per month for possessing P.G. Degree(s) and P.G. Diploma(s) recognized under Indian Medical Council Act, 1956, respectively, to officers up to the level of Chief Medical Officer (NFSG) of General Duty Medical Officer sub-cadre of Central Health Service. The rates of these allowances will be increased by 25% each time the Dearness allowance payable on revised pay scale rises by 50%. The PG allowance to CHS officers will be sanctioned by Heads of participating units of CHS in terms of OM No. A.29015/7/2004-CHS.V dated 5th October 2006.

At present, IITH has four (04) regular Medical Officers on its roll and two (02) of them are having PG/DNB degree and requested the Institute for grant of PG allowance. Further, the Director stated that there will be a financial implication for a total amount of Rs. 54000/- per annum on implementation of the PG allowance to both the eligible medical officers {02 (Medical Officers eligible for grant of PG Allowance) * Rs. 2250/- (Rate of PG allowance) * 12 months = Rs. 54000/- per annum}.

Comments of AS(TE), MoE: May be considered as per advice of the IFD representative of the Ministry.

Comments of JS & FA, MoE: IITs are governed by CS (MA) Rules. The referred OM pertains to Medical Officers working in core Central Health Services and there is no mention of Autonomous Bodies in the said OM. Therefore, is not applicable to Medical Officers working in a health facility of an institute (Autonomous Body). May not be agreed to.

The Board did not approve the proposal for grant of Post Graduate Allowance to the Medical Officers of the Institute in consonance with the IFD comments.

Item No. 39.3.4: Proposal for sanction of 100 new non-teaching posts

The Director stated that, previously the Institute has created some new posts in 2019. However, with the students' strength having increased to 3802, the requirement of staff has also increased in order to ensure smooth functioning of various academic departments and administrative sections. He further stated that presently, the Institute has 318 sanctioned posts, out of which 281 have been filled so far. It is now proposed to notify the remaining 31 direct recruitment vacancies under NF-11 advertisement as mentioned in the previous agenda item 39.3.2.

He further stated that in accordance with Section 6(i) (h) of the IIT Act, 1961, where the IITs are allowed to create the non-faculty posts in the ratio of 10:1.1 (student: non-faculty), the Institute proposes to create 100 posts. Once the 100 additional sanctions are obtained, the total non-faculty strength will reach a total of 418 based on present student strength of 3802.

Thereafter, the Director presented the tabulated details of vacancies proposed for creating 100 new non-teaching posts. Further, he stated that there will be a financial implication for a total amount of Rs. 4, 53, 31,128/- per annum upon creation of these posts considering the present DA of 34%.

Comments of AS (TE), MoE: Proposal may be agreed to in-principle, however, Institute to strictly follow the Reservation Policy of the Government of India while filling.

Comments of JS & FA, MoE: Sanction of additional posts needs explicit approval from D/o Expenditure (MoF). Complete proposal may be forwarded to the Ministry for examination and then onward submission to DoE.

The Board directed that a detailed proposal may be forwarded to the Ministry for examination and onward submission to the DoE.

Item No. 39.3.5: Proposal for modification of earlier BoG minutes with respect to on duty leave for faculty

The Director stated that, during the 34th BoG meeting held on 04 Jun 20, the Institute had proposed to the BOG to allow grant of Special Casual Leave up to a maximum of 30 days in a calendar year to the faculty members to regularize their absence from duty for pursuit of professional activities like attending conferences, seminars, workshops, research visits, fellowships to other universities etc. as laid down in the Institute's Statutes.

Further, while discussing the aforesaid proposal, the BoG suggested that such absence of faculty should be treated as 'On Duty' with the approval of HOD, Dean and Director and the same has been ratified in the 35th BoG meeting held on 07.12.2020. However, no limit of such special Casual leave had been laid down during this meeting. In order to save the Institute's academic activities from getting adversely affected by the prolonged absence of faculty for such purposes, especially during semester times, it was proposed to fix a limit of such absence of faculty to a maximum of 30 days in a calendar year and to a maximum of 5 days excluding holidays, if any, prefixed or suffixed to it, when the semesters are in progress.

The board discussed the proposal in detail and it was opined by some members that whilst it would be prudent to lay down a specific limit such as 30 days so that academic activities do not suffer due to prolonged absence of faculty members, any further conditions may be too restrictive.

Comments of AS (TE), MoE: May be considered.

The Board approved a maximum of 30 days of Special Casual Leave to the Faculty members in a calendar year.

Item No. 39.3.6: Proposal for setting up of IITH-LVPEI Eye Care Facility on the campus

The Director stated that, in partnership with IITH, L V Prasad Eye Institute (LVPEI) has proposed to create a comprehensive and sustainable eye care program in the Sangareddy region covering one million population with various activities in a phased manner i.e., establishment of secondary level eye care facility under phase-1 in the first two years, establishment of ten primary eye care facilities under phase-2 in the Third year to fifth year and development of some tertiary care elements based on the demand to eliminate the need to travel to the city. On a parallel path, there is also a plan to develop clinical technology development and testing centre for eye care technology.

The purpose of the facility is to ensure that no one goes needless blind in the region, making high quality eye care accessible, available, and affordable to all in the Sangareddy region. This integrated model of secondary and primary eye care network will be connected to LVPEI Banjara hills campus with a full complement of permanent infrastructure accessible from primary eye care to tertiary eye care for all those in need. This facility will provide eye care services to the population in and around Sangareddy region with a mix of paying and non-paying category of services, wherein the patients who can afford to pay are charged as per their ability in three tier structure and the patients who cannot afford to pay are provided the same quality of services at no cost.

The total outlay for the project is around Rs. 15 Crores, with Phase 1 outlay of Rs. 10 Crores and Phase 2 outlay of Rs. 5 Crores. LVPEI will raise the required capital resources towards establishing the facility and the program (A philanthropist has already expressed his interest to provide a contribution of Rs. 10 Crores).

The timeline towards commencement of services for phase 1 program is 12 months. It is expected to provide outpatient services to around 20,000 patients and perform 2,000 surgeries per annum, of which 50% of them will be provided at no cost to the patient. The facility will also have a permanent infrastructure of primary and secondary network. The Eye Care facility would also collaborate with the faculty of IITH for research in the field of development of Eye Care technologies.

This Centre will be under the management of LVPEI, which will be responsible for its complete operations. LVPEI will manage and implement the program/Centre on sustainable basis and for its operational expenses.

The MoU was discussed by the board and it was clearly brought out by the Director that no land is being disposed of or transferred to any entity and there no financial implications to the proposal. He further stated that the proposal for establishing the eye care facility is for a socially relevant clause and the facility will be operated on a no profit/no loss basis. The board members agreed with the proposal. Based on the discussions, the Chairman directed that the MoU needs to be reviewed and an amended MoU may be presented to the Board by circulation before 30 June 2022. The amended MoU should necessarily include the following;

- a) The Eye Care Facility is being primarily set for supporting research by the faculty members of IITH. IITH's intent to support the society in the neighborhood is secondary. The facility is to be setup in such location ensuring no interference from patients with academic or research work of IITH.
- b) The Management committee, which manages the facility on the IITH campus should be chaired by the Director, IITH. The management control has to rest with IITH.
- c) The MoU should be reviewed periodically.

Dr Prema Ramachandran stated that there is plenty of scope in undertaking research in both primary and secondary health care, particularly in ocular health. She further suggested that the new facility once created should be utilized for undertaking the health checkup of all the faculty and staff members at IITH.

Comments of AS(TE), MoE: It is mentioned that IITH will make provision for two acres of land for setting up the Eye Care facility. As per Institute of Technology Act 1961, Clause 6(2), Institute shall not dispose of any manner any immovable property without the prior approval of the Visitor. This aspect is not clear from the agenda details. Moreover, since this agenda has financial implications, this should be first brought to FC.

The Board accords in principle approval to the proposal for setting up of IITH-LVPEI eye care facility on the campus subject to board approving the amended MOU through circulation.

Item No. 39.3.7: Proposal for establishing Greenko School of Sustainable Science and Technology at IITH

The Director stated that, Greenko Foundation, Hyderabad has proposed to collaborate with IITH to establish Greenko School of Sustainable Science and Technology (GSSST), a center for research academic development and extension in the areas of Climate Change Mitigation, Digitalization, AI and Space technologies for Energy and Industrial Transition, Circular and Regenerative Economy, Industrial Ecology and Green Chemistry, Hydrogen and Zero Carbon Molecules, etc. Thereafter the draft MoU was discussed and the Board members opined that the Intellectual Property (IP), the termination clause and constitution of the management needs to be reviewed. The Chairman directed that the MoU be suitably reviewed and presented to the members through circulation by 25 June 22.

Comments of AS(TE), MoE: May be considered.

The Board accords in principle approval subject to the board approving the revised MOU through circulation to the proposal for setting up of Greenko School of Sustainable Science & Technology (GSSST) at IITH.

Item No. 39.4.1: Action Taken Report on the Minutes of the 38th Meeting of the Board of Governors

A report relating to the actions taken on the various minutes was presented by the Director for information and consideration of the Board. The Director stated that no actions are pending.

Comments of AS(TE), MoE: Action taken may be noted.

The Board ratified the actions taken on the resolutions of 38th board meeting of IITH held on 16th February 2022.

Item No. 39.4.2: Report of action taken by the Chairman, Board of Governors from time to time since the last meeting

The Director stated that the Chairman of the Board has approved various actions which were necessary for carrying out the day-to-day activities of the Institute and these were presented to the Board for approval.

Comments of AS(TE), MoE: May be noted.

The Board ratified the approvals of the Chairman, BoG, IITH regarding offer of appointments issued and revision of pay fixation to the faculty members, as presented.

Item No. 39.5.1: Report on Research and Development (R&D)

The Director stated that a sum of Rs. 8 Cr has been received thus far by the Institute for sponsored/consultancy research for the period 2022-23. The DRDO cell is operational at IITH and a total of 13 Projects amounting to Rs 23.08 Cr have been sanctioned with an amount of Rs.13.88 Cr being released till date. In addition, a Centre of Excellence in Additive Manufacturing has been approved in principle. He further updated the members on the present status of the Patents filed/granted stating in the last two years stating that 57 patents have been filed and 08 patents granted till date. Complete applications have not been filed for some of the provisional patent applications filed in 2020. Due to this, the number of complete applications in 2020 has been reduced.

The Director also stated that IITH has transferred three technologies to different industries and elaborated upon the functioning of the I-TiC, Research Park and TiHAN foundations at IITH for the information of the members.

Comments of AS(TE), MoE: May be noted.

The Board noted the report on Research & Development activities of IITH.

Item No. 39.5.2: Report on Campus Development Project

As a part of the expansion program of IITH, the Board of Governors had approved the Campus Development Project divided into two packages viz., 3A and 3B in its 29th and 31st meetings. This project is majorly funded by JICA loan and partly through HEFA. A brief report on the Campus Development Project of the Institute, highlighting the scope of work under this agreement and the timelines was also presented.

The Dean Planning stated that the speed of works has picked up pace after delays caused by shortage of labour and material because of the pandemic. The Director stated that regular review meetings/site visits are being conducted both by the Director and Dean planning with both the contractors, M/s L&T and M/s SPCL Pvt Ltd to ensure that work is being progressed in accordance with the revised timelines. The Dean Planning further elaborated upon the progress of the Construction and explained the three sources of funding, i.e., JICA, HEFA and TRP for the Package 3A and 3B.

Further, the Director stated that the Technology Research Park (TRP) building was inaugurated by Dr. Srivari Chandrasekhar, Secretary, DST, GOI on 05th February 2022 under Package 3A (IITH-JICA Collaboration Project). Under Package 3B, the Hospital building had been completed and inaugurated by Dr Guru N Reddy, Founder & Chairman, Continental Hospitals, Hyderabad on 27th March 2022 and the Married Students' Housing was inaugurated by him on 06th April 2022.

He also stated that, the Ministry vide letter No. 11-13/2017-TS-I dated 02.06.2022 has conveyed that the progress of works (JICA) is very slow and requested to take appropriate action for completion of the project within the stipulated timelines to avoid price escalation / cost and time overrun. Further, the Ministry has requested to mention the action taken in the next monthly progress report.

Comments of AS(TE), MoE: Ministry has conveyed its comment on the JICA Progress report vide letter No. 11-13/2017-TS-I dated 02.06.2022, that letter may also be brought to the notice of members of the FC.

The Board noted the report on Campus Development Project activities of IITH.

Item No. 39.5.3: Report on Academics

The Director stated that, a new BTech Program in Electrical Engineering (IC Design & Technology) is introduced which is a flexible four-year program with clearly defined paths and outcomes. The Philosophy of the program is to cater the needs of industry in the area of Fabless and Fab with a context of \$10 Billion investment in India for Semiconductor Ecosystem and vision for Electronic System Development spanning different domains. System Development drives IC design; IC design drives fab. USPs of the program has been briefed to the members.

He also briefed the members regarding the new specialization MA programme offered in Health, Gender and Society under Liberal Arts Department (Approved in 47th Senate held on 27th January & 02nd February 2022) which is designed to enable innovative and rigorous research to address social problems in the area of health and gender in contemporary India. With a directory of faculty from Sociology and Anthropology, Development Studies, Economics, Linguistics and Cognition, Psychology, Literature and Cultural Studies, this program aims to provide a comprehensive understanding of the diverse health systems, infrastructures, and policies that impact gender and family in complex ways. With dedicated internship and dissertation components, this two-year full-time program offers students a formidable and challenging platform from which they can engage with contemporary research and professional practice in India and across the globe.

A two-year program for Self-sponsored candidates in Masters of Research program in Liberal Arts department is introduced (approved in 48th Senate held on 27th April, 2022) which a combination of both teaching and research is keeping in mind the New Education Policy 2020. Other IITs like IIT Bombay, IIT KGP, IIT Kanpur, IIT Delhi, IIT Roorkee, IIT Indore already have MA/M.Sc./Integrated MA programs in Economics. With this program, the Department of Liberal Arts at IITH will move in a similar direction, while carving a unique niche for itself. The Master of Research in Economics will help train students pursue Ph.D. programs. A two-year program, this Masters will combine 18 credits of course work and 30 credits of research.

The Director stated that a new two-year specialization program of MTech in Transportation Engineering of Civil Engineering Department is introduced to coach the students in the critical areas such as geometric design of transportation facilities; transportation planning; pavement engineering; traffic operations and safety as per the industry needs and academic requirement has been introduced. As per course curriculum, more than half of the course credits -12 are core transportation engineering courses. Core transportation engineering courses are planned in a way to teach students about pavement materials, pavement design, traffic engineering, transportation planning and advanced technologies that are being employed in the transportation systems to enhance safety of the users.

A new specialization in MTech program of Materials Science & Metallurgical Engineering department - MTech in Semiconductor Materials and Devices is introduced which aims to nurture expertise in Semiconductor Materials and Devices, one of essential resources to make India self-sustainable and further as a global hub for Electronic Systems and Manufacturing. The specialized degree programs like this current Semiconductor Materials and Devices at IITH is of paramount importance to meet the technological growth and demands both nationally and globally. By the year 2030, the global need of AI+IoT devices are predicted to be >350 billion (source: 2020 IEEE ISSCC, Cisco VNI Global IP Traffic Forecast 2017-2022). In the recent initiatives of the Indian government Rs.76000 crore (>10 billion USD) has been approved for development of semiconductors and manufacturing ecosystem in the country (source: investindia.gov.in). Therefore, this program is in line with the recent expansion of the vision of Aatmanirbhar Bharat in setting up of India's

Semiconductor Mission. Hyderabad hosts several public and private R&D laboratories and manufacturing industries specialized in semiconductors like CMET, RCI, BEL, BHEL, Micron, MosChip Semiconductor Technologies, and so on. IITH, being a premier institution, is well positioned to provide advanced training to generate workforce to meet the challenges. Materials Science and Metallurgical Engineering department of IITH have the spectrum of expertise starting from extraction, purification and crystal growth of semiconductors to processing of semiconducting materials and micro-nano fabrication and testing of semiconducting devices. The main motive of this Masters' Program is to participate in developing the ecosystem within the country in terms of indigenous progress of semiconductor materials and devices for semiconductor industries. This also shall create the much-needed skilled workforce to meet the requirements in the development of the semiconductor materials and devices. The current academic program is meant for enthusiastic bright candidates who are willing to take a career path on semiconductor technology. During this program, the students also shall get the opportunities to do their Masters' Project in joint collaborations with several semiconductor-based institutions, R&D labs and industries.

A new M.Sc program in Medical Physics is introduced which is an Interdisciplinary program for Self-sponsored candidates, approved in 48th Senate held on 27th April, 2022. Medical Physics is a branch of Applied Physics, that uses physics principles, methods and techniques in practice and research for the prevention, diagnosis and treatment of human diseases with a specific goal of improving human health and well-being. Through this course students will have knowledge to the physics of radiation biology, radiation safety & regulations, instrumentation, drugs and quality control procedures, Clinical studies (diagnostic and therapeutic), and patient care and management related to the field of nuclear medicine, Perform all routine diagnostic nuclear medicine procedures and quality control procedures in a timely fashion with minimal supervision, Demonstrate patient care and management skills, Radiation therapy planning, imaging and quantification of images, image analysis, image artifact evaluation, class projects, case study analysis.

This postgraduate degree program trains physics graduates as professionally sound medical physicists, with good academic knowledge and practical skills in the areas described. Core subjects include Radiation Physics and Safety, Techniques, Dosimetry, Imaging Physics, Nuclear Medicine Physics, Radiobiology and Anatomy and Physiology, A project has to be carried out in the second year. Potential employment prospects include hospitals, universities or a research Institute.

The Director also mentioned that an MTech in Heritage Science and Technology is being brought out this year in an online mode by the Department of Heritage Science and Technology.

The Director presented the program wise student strength and stated that as on 20.05.2022, a total of 3802 students are on the rolls of the Institute.

Comments of AS(TE), MoE: May be noted.

The Board noted the progress of academic activities of IITH.

Item No. 39.5.4: Report on faculty recruitment including backlog vacancies

The Director stated that, the faculty recruitment has been carried out in five rounds i.e., Oct 2019-Jan 2020, Aug 2020 to Oct 2020, Apr 2021 to Oct 2021, Dec 2022 to Jan 2022 (special recruitment drive) and the fifth one from Jan 2022 to Feb 2022. Currently IITH has a total strength of 271 faculty members. Further, the tabulated details of the offers made, those who joined/regretted and those who accepted but are yet to join and yet to accept was presented to the members. A special recruitment drive also planned during the year and will release the advertisement once the ongoing regular recruitment process is completed.

Comments of AS(TE), MoE: May be noted.

The Board noted the report on the faculty recruitment including backlog vacancies.

Item No. 39.5.5: List of external experts invited for faculty interview since the last meeting

The Director updated the members on the list of external experts who were invited to act as recruitment panel member for the faculty interviews since the last meeting.

Comments of AS(TE), MoE: May be noted.

The Board noted the report on the list of external experts invited for faculty interview since the last meeting.

Item No. 39.5.6: Report on status of non-teaching staff recruitment (NF-9)

The Director stated that, the status on recruitment under NF-9 for the post at Level-8 and above along with the recommendations of the Selection Committees have been reported to the Board in its last meeting held on 16th Feb 2022. Further, the Institute had conducted written tests on 12th and 13th March 2022 for the posts at Level-6 & below. On the recommendations of the Selection Committee and with the approval of the Appointing Authority offers letter were issued to all the selected candidates. The tabulated details of the offers made, those who joined against each post were presented to the members.

The Director further stated that, a total of 08 vacancies remained unfilled out of 24 vacancies advertised under NF-9.

Comments of AS(TE), MoE: May be noted.

The Board noted the report on status of non-teaching staff recruitment (NF-9).

Item No. 39.5.7: Report on advertisement of Deputy Registrars on deputation basis (NF-10)

The Director stated that with the approval of the Chairman, BoG, an advertisement was notified for filling up 02 vacancies of Deputy Registrar posts on deputation basis in all editions of Employment News on 14th May 2022. Applications were invited from among the eligible officials of the Central Govt. organizations / State Govt. organizations / Central Autonomous bodies / Govt. Research establishments / Universities / Govt. organizations of high repute.

Comments of AS(TE), MoE: May be noted.

The Board noted the report on advertisement of Deputy Registrars (NF-10) on deputation basis.

Item No. 39.5.8: Report on New Joining/Resignation/Deputation

The Director updated the committee about the details of staff members who have been joined the service under NF-9 recruitment and those who have been relieved from the institute on deputation & resignation.

Comments of AS(TE), MoE: May be noted.

The Board noted the report on joining of new staff members and details of employees relieved from the services of the Institute.

Item No. 39.5.9: Report on grant of Honorary Doctorate to Prof. Subra Suresh, President NTU Singapore

The Director stated that, on the eve of 11th convocation of IITH scheduled to be held on August 20, 2022, Prof. Subra Suresh, President of NTU, Singapore has been invited as Chief Guest for the Convocation and he has kindly accepted our invitation. To honor such an eminent personality, it was proposed to give an Honorary Doctorate to Prof. Subra Suresh during his visit to IITH.

Further, as per the IITH Statutes under clause 27. Conferment of Honorary Degrees (1) “All the proposals for the conferment of honorary degrees shall be made by the Senate and shall require the assent of the Board before submission to the Visitor for confirmation.” (2) “Whenever it is necessary, the Chairman of the Board may submit, on behalf on the Board, such proposal to the Visitor.” Accordingly, a proposal for awarding an Honorary Doctorate to Prof. Subra Suresh has been circulated among senate members seeking their consent and members reverted back in agreement with the same. The approval of the BoG, Chairman has also been accorded.

The proposal has been forwarded to the Secretary, MoE vide letter No. IITH/Dir/2/2022 dt Jan 5, 2022, to obtain the approval of the Visitor (The Hon’ble President of India).

Comments of AS(TE), MoE: May be considered.

The Board noted the report on grant of honorary doctorate to Prof. Subra Suresh, President NTU Singapore.

Item No. 39.6: Any other items (with the approval of the Chairman)

Item No. 39.6.1: Proposal for approval of draft MoU for signing with MoE for the financial year 2022-23

The Director stated that, a MoU needs to be entered with Ministry of Education by the Centrally Funded Technical Institutions (CFTI) every year and the same must be approved by the BoG before forwarding to the MoE in accordance with the Ministry letter No. F.No.37-2/2020-TS-I dated 24.05.2022. Accordingly, a draft MoU prepared for the financial year 2022-23 in the prescribed format has been presented to the members.

The Board approved the draft MoU for signing with Ministry of Education for the F.Y 2022-23.

Item No. 39.6.2: Proposal for constitution of an Endowment Advisory Board (EAB)

The Director stated that, as per the MoE circular F. No. 35-7/2019-TS-I dated 07.12.2021, the Endowment Advisory Board shall be chaired by the Director and would include members from donors, alumni and well-wishers of the Institute as well as Institute faculty. He also stated that, the Board may also consider including nominees from associations of alumni and suggested the following composition:

1. Director as the chairman
2. Dean PCR
3. Dean AR

4. Dean R&D
5. BoG representative(s) as a well-wisher/potential donor (Max two representatives)
6. Institute faculty(ies) with relevant experience in markets and investments (Max two faculty members)
7. President, Alumni Association

The Director requested the BoG Chair to suggest possible representatives of BoG for the committee at his convenience. The Director further stated that, the role of the EAB is to make recommendations to the BoG on strategic directions regarding the fund utilization and investments. IITH, with the help of EAB can choose to appoint a reputed third-party service provider to manage funds. However, all investment decisions will be approved by the Director of IITH with the recommendation of EAB. EAB may later choose to form an investment Committee, which may be approved by the Director.

The Board accorded approval to the proposed composition for Endowment Advisory Board (EAB).

The meeting ended with thanks to the Chair.
