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HARCOURT BUTLER TECHNICAL UNIVERSITY
NAWABGANJ, KANPUR - 208002, U.P., INDIA
(Formerly Harcourt Butler Technological Institute, Kanpur)

100 YEARS
1921 - 2021

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THE PULSE OF HBTU

YEAR II

JULY 14 2022, THURSDAY

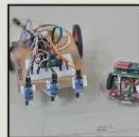
FORTNIGHTLY NEWSLETTER



Page 2



Page 3



Page 5



Page 7



Page 8



Page 9

FELICITATION CEREMONY

Felicitation ceremony for 'Outstanding Contribution in the field of Education'



Harcourt Butler Technical University Kanpur held a felicitation ceremony on 5th September 2021 to honour its faculty members for their excellent and exceptional contributions to the field of education. Dr. Pramod Kumar of the Dept. of Oil and Paint Technology was honoured for his unparalleled contribution and dedicated services as a teacher. Dr. Pramod Kumar has a remarkable teaching and research experience of 33 years as of November 2018. Since his time of joining HBTU in 1985, he has served in various positions. This honour was bestowed upon him by Hon'ble Member of Parliament Mr. Devendra Singh Bhole. Prof. Raghuraj Singh, Head of Department, Computer Science and Engineering with approximately 24 years of experience, was honoured for his outstanding contribution and devotion as a teacher with- "Outstanding Contribution in Education Field".

Since his joining the university, Prof. Raghuraj Singh has supervised 12 PhDs and about 24 MTech thesis. Throughout his brilliant academic career, he has published about 92 research papers at various national and international conferences, thus setting significant benchmarks for the younger generations to follow.

Dr. Onkar Singh, a Researcher, and Professor, in the Department of Mechanical Engineering with many years of great experience, was also felicitated for his "Outstanding Contribution in Education Field". Dr. Singh has been a Limca Book of Records holder twice (2014 and 2015) for his novel work on an air turbine-engine-based motor-bike. He is also a holder of three patents. He has authored many books widely used as textbooks in many engineering colleges across India.

Other Dignitaries present at the event were:

Mr. Neeraj Kumar Singh, Registrar HBTU Kanpur

Dr. Alak Kumar Singh, Dean School of Chemical Technology



FORTNIGHTLY NEWSLETTER

Gita Gopinath, the first woman and second Indian to get featured on "wall of former chief economists" of the International Monetary Fund (IMF)



The First Deputy Managing Director of the International Monetary Fund (IMF) Gita Gopinath has made it as the first woman to be featured on the 'wall of former chief economists' of the IMF, making it a proud moment in the history of IMF. This makes

her only the second Indian to achieve this feat as the first Indian to achieve the honour was none other than Raghuram Rajan as IMF's Chief Economist and Director of Research between the years 2003 and 2006. Gita Gopinath's journey with the IMF began when she was appointed as its Chief Economist in October 2018. She was later promoted as the IMF's First Deputy Managing Director in December 2021. Notably, Gopinath had served as the first female chief economist of the Washington-based global lender for the last three years. IMF's managing director, Kristalina Georgieva, said in a statement last year that under Gopinath's leadership, IMF's research department made contributions, including in multilateral surveillance through the World Economic Outlook, developing a new analytical approach to help nations respond to international capital flows and her recent work on a plan to end the covid crisis by setting targets to vaccinate the world at a feasible cost. Gita Gopinath was a visiting scholar at both the IMF and the Federal Reserve Bank of Boston, member of the economic advisory panel of the Federal Reserve Bank of New York. India-born Gopinath received her PhD in economics from Princeton University in 2001 after earning a BA from the University of Delhi and MA from the Delhi School of Economics and the University of Washington. She joined the University of Chicago's Booth School of Business in 2001 as an assistant professor before moving to Harvard in 2005.

PM Modi pitches India's emerging clean energy market at G7, urges member nations to invest



G7 Summit held in Germany amid Russia-Ukraine war. India invited as partner country, along with Indonesia, Argentina, Senegal and South Africa. Prime Minister Narendra Modi Monday exhorted the Group

of Seven (G7) countries to consider promoting and investing in India's emerging market for clean energy technologies as he attended the G7 Summit in Germany amid the Russia-Ukraine war. The G7 is an informal grouping of industrialised economies, made up of the US, the UK, Canada, France, Germany, Italy and Japan. PM Modi was invited to attend this year's G7 Summit by German Chancellor Olaf Scholz as a partner country. Apart from India, Indonesia, Argentina, Senegal and South Africa also attended the summit as partner countries. He added, "When a large country like India shows such ambition, other developing countries also get inspiration. We hope that the rich countries of G7 will support India's efforts."

Former Japanese Prime Minister Shinzo Abe assassinated in the city of Nara

Abe, Japan's longest-serving Prime Minister, was shot while speaking an election campaign event in the western Japanese city of Nara. Abe was speaking in support of a local candidate running in the Japanese Parliament's Upper House election on Sunday. In the



middle of Abe's speech, the crowd heard two shots being fired and then saw Abe collapse on stage. He was immediately airlifted to the nearby Nara Medical University hospital. NHK reported that police immediately arrested the suspected shooter—a 41-year-old local man named Yamagami Tetsuya who previously served in the Japanese Navy. Police also were able to recover a handmade gun at the scene. Police discovered multiple explosives and several handmade firearms after conducting a search of Tetsuya's apartment. The incident has triggered shock across Japan as shootings and political violence are extremely rare. Several global leaders also expressed their condolences. Gun violence is exceedingly rare in Japan as the country has some of the most stringent gun control laws in the world. Handgun ownership by civilians is completely banned. Civilians may apply for a license to purchase either an air rifle or a shotgun to be used for sport or hunting.

SURPRISING FACT - Abe was born to a prominent political family and his grandfather, Nobusuke Kishi, was prime minister from 1957 to 1960. Kishi was also the target of an assassination attempt and was stabbed during his final days in office. He survived the attempt.

Cloudburst at Amarnath Yatra Shrine

Drones and helicopters were pressed into service and mountain rescue teams and lookout patrols with high-tech equipment and sniffer dogs deployed as operations continued on Saturday to look for survivors in the cloudburst incident near the Amarnath cave shrine that snuffed out 16 lives. About 84 pilgrims from various parts of Andhra Pradesh, who went on the Amarnath yatra, were reported safe while only two women still remained untraced as on Sunday afternoon, official sources here said. Initially, the state government said five pilgrims went missing but later three were traced and confirmed to be safe. State government authorities got in touch with many of the pilgrims, and also their families here and confirmed that the tourists were safe after the cloudburst and flash flood near the holy cave shrine. Sixty three people from Beed in Maharashtra got stranded during the Amarnath pilgrimage and they were later rescued and taken to Jammu, Srinagar and other places, a district administration official said on Sunday. A total of 63 pilgrims - 39 from Dhamangav village and 24 from Parli city in Beed district had gone to Amarnath in Jammu and Kashmir, where a flash flood occurred following a cloudburst, he said. The pilgrims had got stranded near the Amarnath temple shrine. "They have now been rescued and taken to places like Jammu, Srinagar, Baltal and Delhi. They are safe," the official said.

Technika'22

YEAR II

JULY 14 2022, THURSDAY

FORTNIGHTLY NEWSLETTER

Born from the rage of the technological era, Technika'22 -an yearly three-day technical fest was organized by the Technical sub-council of Harcourt Butler Technical University Kanpur. With the inherent idea to surpass the creative artistry among the budding minds through real-world problems, the fest was organized on the 20th, 21st, and 22nd of May 2022. The 30 events of the three-day fest saw a footfall of 3000+ students from multiple universities and colleges across the state of Uttar Pradesh. Various workshops were also organized by AutoRob Club and AeroClub under the sponsorship of Technika, thus making the students well equipped with everything they would otherwise need to participate in the events.

The fest kickstarted with an inaugural ceremony. Hon'ble Vice-Chancellor Prof. Samsher, Deans, and faculty members were present for the lamp lighting ceremony. The ceremony then proceeded with an elegant kathak rendition of Ganesh Vandana. Hon'ble Vice-Chancellor expressed his immense joy as this happened to be the first inter-college technical fest organized in the century-old history of the university. In his address, he applauded the efforts of the entire Technika'22 team. He highlighted the importance of fests like this and how they played an instrumental role in breaking the monotony set by regular examinations and lectures. He emphasized the key role played by the fests in providing a platform where students can showcase their talents, groom their personalities and thus become the best versions of themselves. Dr. V.P. Singh, Convener, Technical Sub- Council appreciated the efforts of the team and shared his thoughts about the fest with the audience. Shubham Rana, 3rd B. Tech ME, Student Secretary, Technical Sub-Council, presented a vote of thanks.

The fest that started with overwhelming participation in the Quiz me More event, saw an equally energetic audience and participation in a plethora of events that were broadly categorized as follows- Fly high, Code Ops, Chanakya Neeti, Flagship, Mech Marvel, and Circuitopolis.

The fest was not all about technology and about robots fighting in the arena, fun events like Fun Fare, EDM Night, and Celebrity talks provided an edge to the fest and an opportunity for the participants to relax after a day of solving problems.

The immense enthusiasm exhibited by the students throughout the fest served as the cherry on the ice cake and thus embarked the technika'22 as an epitome of triumphant.

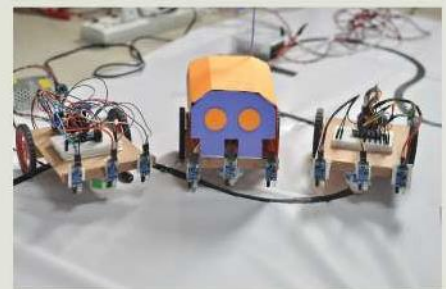
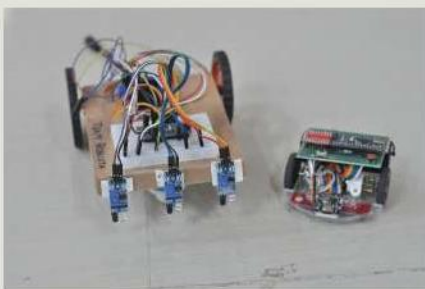
Technika'22

YEAR II

JULY 14 2022, THURSDAY

FORTNIGHTLY NEWSLETTER

Album of Technika'22



AAGAZ'22

YEAR II

JULY 14 2022, THURSDAY

FORTNIGHTLY NEWSLETTER

Aagaz is the Annual Sports Fest of Harcourt Butler Technical University, Kanpur. 11 colleges from across the state of Uttar Pradesh participated and proved their mettle in the 11 sporting events like athletics, badminton, basketball, chess, table tennis, kabaddi, volleyball, football, cricket, carrom and skating, organized by Aagaz. The entire team of Aagaz worked diligently for nearly a month to make the three-day fest- 20th, 21st, and 22nd of May 2022 a successful event.

The fest was possible only due to the collective efforts of the entire team, the guidance of Mr. Manish Singh, Convener, Sports Sub-Council, and Aman Lakhotia, Student Secretary, Sports Sub Council.

The inaugural ceremony of the fest started with a welcome address from Hon'ble Vice-Chancellor Prof. Samsheer and a march past salute. Hon'ble Vice-Chancellor then declared the meet open. The inaugural ceremony would have been incomplete without the iconic 'pigeon flying' ritual - a trademark of Aagaz. In the true spirit of Einstein's words "Peace cannot be kept by force. it can only be achieved by understanding.", the pigeon flying ritual left an indelible image in the minds of the spectators. The inaugural ceremony concluded with the torch lighting ceremony, thus marking the beginning of the sports fest.

On the third day, the university's team clinched the first position in Cricket, basketball, and football. In the final match of Cricket on the third day, HBTU's team defeated the team from ABES, Ghaziabad, with 16 runs. Sonu Yadav, from the winning team, scored 56 runs, thus setting a high goal for the opponent team to chase.

In the final basketball match, the team from MIT Moradabad managed to score 28 whereas the university's team scored 37, thus winning the match. In the final football match against REC, Kannauj, HBTU won with a score of 6-7.

The members of the winning team were awarded trophies and certificates on the last concluding day of the fest.

All the participants played with true sportsman spirit, thus making the fest an invigorating one.

AAGAZ'22

YEAR II

JULY 14 2022, THURSDAY

FORTNIGHTLY NEWSLETTER

Album of Aagaz'22



RETIREMENT

YEAR II

JULY 14 2022, THURSDAY

FORTNIGHTLY NEWSLETTER

University bids farewell to three of its professors after their long and glorious careers



A farewell ceremony was organized for Dr. R.K.Shukla, Prof. V.K. Tyagi, and Prof. P.K.Kamani on 30th June 2022 in the Old Library Hall of the University. All the faculty members and office bearers became a part of the ceremony to bid farewell to our beloved professors. Dr. R.K Shukla, Professor Department of Physics Dean, Research and Development, is retiring with a teaching experience of 28 years and research experience of 30 years. Throughout his career, his area of interest has been Experimental Solid State Physics (Amorphous Semiconductors). During his time at the university, he has published 61 papers in International journals and 40 papers in a multitude of National/International Conferences. He has guided 7 Ph.D. students. He has published 4 books that are widely used by engineering students all across the country to strengthen their concepts of Physics. Dr. V.K.Tyagi, Professor and Head Department of Oil & Paint Technology, who is also retiring this year, has teaching and research experience of nearly three decades. Dr. Tyagi, who is also an alum of our university, joined the university as a lecturer back in 1988. Since then he has contributed tremendously to improving education and has held various administrative positions. He has published and presented about 83 papers in various International and National journals and conferences. Throughout his career, he has been on multiple academic visits with duration to foreign countries. He has also guided 26 M.Tech scholars and 6 Ph.D. scholars. He has published 2 books that serve as a guide to students to date. Dr. P.K.Kamani is a Professor in Paint Technology Department. He is also an alum of our university and he did his B.Tech (1981), M. Tech. (1983) and Ph. D. (1997) in Paint Technology with Gold Medal. Throughout his career, he has published and presented more than 150 papers in National and International journals and conferences. He has also written a book on Paints, Varnishes, and Lacquers. He has been conferred the India Paint Association award twice, of which one was presented by Hon'ble President Sri Pranab Mukherjee, the then Finance Minister. His Research scholar has been conferred the Best Ph.D. Thesis Award by Kansai Nerolac. Dr. Kamani has also gone overseas to deliver his talks. He has completed several projects sponsored by private and government organizations. Dr. Kamani has filed two of his premier works for a patent. He is a life and fellow member in various associations of high repute e.g.IEI, ISTE, OTAI, PACT, and HA. Dr. Kamani has guided 4 Ph.Ds.



GRATITUDE FROM PSMSC

"There is a whole new kind of life ahead, full of experiences just waiting to happen. Some call it retirement. I call it bliss." —Betty Sullivan

Words cannot characterize how fortunate we are for being among your students. We will truly miss your excellent perception of solving academic as well as real-life problems! We wish you all good health and lots of fun in retirement! You all have always been outstanding and visionary teachers who dedicated their lives to the service of our college. We wish you nothing but the best in the next stage of your life. Thank you for helping us learn how to attain life goals and overcome any difficulties that come our way.

Congratulations on your retirement!



SCIENCE AND TECHNOLOGY

YEAR II

JULY 14 2022, THURSDAY

FORTNIGHTLY NEWSLETTER

TIHAN: INDIA'S FIRST AUTONOMOUS NAVIGATION FACILITY



India's first autonomous navigation facility, TiHAN, launched at IIT Hyderabad India's first Autonomous Navigation facility, TiHAN was inaugurated by Jitendra Singh, Union Minister of State for Science & Technology at the IIT Hyderabad campus on Monday. Developed at a budget of Rs. 130 crores by the Union Ministry of Science & Technology, TiHAN (Technology Innovation Hub on Autonomous Navigation) is a multidisciplinary initiative that will make India a global player in the futuristic and next generation 'smart mobility' technology. The minister said that TiHAN is developing and deploying a real-time CPS system utilising autonomous UAVs and ground/surface vehicles for many application sectors of the national importance of this decade. Secretary, Department of Science and Technology, Dr. Srivari Chandrasekhar said that the testing facility also includes an airstrip, soft landing area, hangar for keeping drones, a Ground control station (GCS), Telemetry Station for Performance Evaluation. "Performance evaluation of Payloads such as LiDAR, radar, camera, etc., is being evaluated.

A CLOUD-BASED SECURITY COMPANY, LOOKOUT, RECENTLY DISCOVERED A NEW SPYWARE CALLED "HERMIT"



Explained: What is 'Hermit' spyware and how it can affect smartphones - Lookout, a cloud-based security company, has recently discovered a new spyware called, "Hermit" that is capable of affecting both android and iOS devices. According to a recent report by TechCrunch, the company's security researchers have detailed that an android version of the spyware was used in "targeted attacks by national government with victims in Kazakhstan, Syria and Italy. Now Google's researchers have also confirmed the finding of Lookout and have started notifying android users about the devices that have already been compromising by the spyware. How is the spyware distributed? - As per the report, this nasty android app is distributed by text message which looks like coming from a legitimate source. the malware can impersonate other other apps that are developed by telecom companies and manufacturer like Samsung and oppo which tricks the victim to download the malware. How google and apple are reacting to the spyware - The report mentioned that neither android nor iOS version of the hermit spyware were found in the respective app stores. Apart from notifying the android users, google has also updated its play to block the app from running. Moreover the company has also killed the spyware firebase account, which was used to communicate with its server.

IRAN RECENTLY LAUNCHED A SOLID-FUELLED ROCKET NAMED "ZULJANAH" INTO SPACE

Iran has launched a solid-fueled rocket into space. Defense Ministry Spokesman Ahmad Hosseini said Zuljanah, a 25.5 meter-long rocket, is capable of carrying a satellite of 220 kilograms that will ultimately gather data in low-earth orbit and promote Iran's space industry. Zuljanah is named for the horse of Imam Hussein, the grandson of the Prophet Muhammad. However, it drew a rebuke from Washington ahead of the expected resumption of stalled talks over Tehran's nuclear deal with world powers. The White House said it is aware of Iran's announcement and criticized the move as unhelpful and destabilizing. The White House said it is committed to using sanctions and other measures to prevent further advances in Iran's ballistic missile program. Iran, which long has said it does not seek nuclear weapons, maintains its satellite launches and rocket tests do not have a military component. The launch comes just a day after the European Union's foreign policy chief, Josep Borrell, traveled to Tehran in a push to resuscitate negotiations over Iran's nuclear program that have stalemated for months.

IISc: NEW ALGORITHM TO STUDY BRAIN CONNECTIVITY

Researchers at Indian Institute of Science (IISc.) have developed a new graphic processing unit (GPU) based machine learning algorithm called Regularised, Accelerated, Linear Fascicle Evaluation (ReAL - LiFE), which will help to obtain a better understanding and in the prediction of connectivity between different regions of human brain. This algorithm can help analyse extensive data generated from diffusion Magnetic Resonance Imaging (dMRI) scans which helps scientists study the connectivity in the brain at a speed, which is 150 times higher than a regular desktop computer or existing state-of-the-art algorithms. The study has been published in the journal Nature Computational Science. With the study, researchers tried to study the wiring of different parts of the brain which helps in performing various computations. While these patterns can be studied in animals through invasive techniques, in humans, dMRI is used to infer white matter patterns. Through it, scientists can track the movement of molecules to create a comprehensive map of connectome, which is a network of fibres across the brain.

IN-SPACE: AUTHORISATION FOR PRIVATE SPACE SECTOR LAUNCHES



Scientists have discovered a giant white bacterium named "Thiomargarita magnificent Bacteria". The space authority's nod to Dhruva Space and Dig Antara marks the beginning of private space sector launches in the country. The Indian Space Promotion and Authorization Centre (IN-Space) has started authorizing Indian private firms, marking the beginning of private space sector launches in India. IN-SPACE is an autonomous, single window nodal agency; formed to promote, authorize, monitor and supervise the space activities of non-governmental private entities (NGPEs) in India. The first two launch Authorizations issued by IN-SPACE is an important milestone and marks the beginning of private space sector launches in India," said IN-SPACE Chairman Pawan Kumar Goenka. Dhruva Space is a space technology start-up focused on building full-stack space engineering solutions, involved in building application-agnostic satellite platforms. Digantara research and technologies is engaged in development of end-to-end solutions focused on safe and sustainable space operations through its Space Situational Awareness sensor network, platform and data products. Dhruva Space CEO, Sanjay Nekkanti the PSLV C53 mission is a key milestone in the journey of his start-up.

CREATIVE CLUSTER

YEAR II

JULY 14 2022, THURSDAY

FORTNIGHTLY NEWSLETTER



Vaishnavi Sachan
2nd B.Tech
Mechanical Engg.



Yatendra Yadav
1st B.Tech
Chemical Engg.



Swapnil Rastogi
2nd B.Tech
Food Technology



Keshav Rajput
3rd B.Tech
Food Technology



Jahnvi Sachan
2nd B.Tech
Mechanical Engg.