

Convocation 2022

Pilani Campus



BITS Pilani

Pilani | Dubai | Goa | Hyderabad | Mumbai

innovate

achieve

lead

BITS Vision

“What do we propose to do here? We want to teach real science whether it is engineering, chemistry, humanities, physics or any other branch. We want to develop a scientific approach in Pilani, which means there would be no dogma. There will be a search for truth. What we propose to do here is to cultivate a scientific mind.”

—*The Late Shri G.D. Birla,
Founder Chairman, BITS Pilani*

“...to prepare young men and women to act as leaders for the promotion of the economic and industrial development of the country and to play a creative role in service to humanity.”

—*The Late Dr. K. K. Birla
Former Chancellor, BITS Pilani*

“What is it that can empower our nation? The most obvious answer is education. Education that enhances livelihoods but also education that is value-based. Education that gives roots and gives wings as well.”

—*Dr. Kumar Mangalam Birla
Chancellor, BITS Pilani*



CONVOCATION 2022

Pilani campus

Programme

August 21, 2022

09:15 am	Invocation
09:20 am	Chancellor's Address
09:35 am	Welcome Address and Report on Activities of the Institute by the Vice Chancellor
09:55 am	Address by the Director, Pilani Campus
10:10 am	Convocation Address by the Chief Guest
10:30 am	Presentation of BITS Ratna Award, Distinguished Alumnus Awards, and Distinguished Services Awards
11:00 am	Award of Degrees and Medals
01:20 pm	Administration of Oath to recipients of Degrees by the Gold Medalist. {Gold medalist will lead the Oath. Recipients of Degrees will repeat the oath word by word}
01:25 pm	Vote of Thanks by the Dean Administration
01:30 pm	National Anthem
01:32 pm	Academic procession led by the Registrar departs in reverse order in which it entered. {When the procession leaves the Convocation Hall, all assembled will rise in their seats and remain standing until all members forming the procession have left the hall}
01:35 pm	Lunch

CHANCELLOR'S MESSAGE



Dr. Kumar Mangalam Birla

Our Chief Guest Prof Madan Pillutla, Vice-Chancellor of BITS Pilani - Prof. Souvik Bhattacharyya, Director - Prof Sudhir Kumar Barai, Distinguished Faculty members, Graduating students, Ladies and Gentlemen.

Today marks an important milestone for our graduating class. An important phase of your life is behind you. And yet, you cannot consider this an end to your journey of learning. It is more of a pitstop in your journey of knowledge acquisition.

There's a reason why the motto of our institute of excellence is **jñānaṁ paramaṁ balam** - knowledge is supreme power. Knowledge is like a passcode to future life portals. It is a tool by which you can transform possibilities into outcomes. It is also the instrument that can help you decode the world around you.

You may feel I am exaggerating somewhat. Let us consider the world as it was 4 years ago when you entered these gates. There was no Covid or monkeypox. There were no global markets for NFTs. And the Metaverse was not a part of our universe. The world had yet to experience how climate breakdown wreaks widespread havoc – floods, storms, wildfires. There was no war in Europe. No prospect of sentient AI. And no telescope attempting to look at the universe from 13 billion years ago!

So much has changed in just 4 years.

How then do you make sense of a world that changes so rapidly? Indeed, it seems that we are all living at the super pace of a video game. A frantic continuous race to survive and succeed in our chaotic world. With just one superpower at our behest – knowledge.

As you embrace the world outside with the power of knowledge, I would like to leave a question in your mind. What will you – What can you - do with this power?

Many horizons beckon you. India is cruising at top gear on the economic highway, poised to become a USD10-trillion economy by 2030. There isn't a more opportune moment than now for young men and women driven by passion and purpose to serve the country and contribute to its development. I am very confident that many of you present here today will be a part of our nation's development narrative.

We are the 3rd largest ecosystem for start-ups globally, and we rank #2nd in innovation quality. The Indian start-up ecosystem has seen rapid growth in the past few years: 15X increase in the total funding, 9X increase in the number of investors and 7X increase in the number of incubators.

India is now home to well over 100 unicorns with a total valuation of over USD 338 billion. Many of them have been founded by our own outstanding alumni. I am sure that some of you will soon be exploring the exciting frontiers of technology – whether in ed-tech, fin-tech, mar-tech, health-tech, or a yet-to-be-imagined-tech.

But as you start to walk any of these diverse paths, I would like you all to think about Archimedes, who famously said, ***'Give me a place to stand, and I shall move the earth.'***

Do some of you wish to wield the power of change to move the world? Where do you stand? Where do you think you should stand? And what lever will you employ to change the world?

Let me share three examples – these are three winners of India's prestigious Padma Awards, whose life stories can perhaps shed light on what Archimedes meant.

Chhultim Chhonjor is a retired govt employee who hails from the Zanskar region in Ladakh, which is at an altitude ranging from 11,500 to 23,000 feet above sea level. He toiled for 36 years as a government servant and nursed one regret. He was pained at how remote and inaccessible the region was to the rest of the Indian mainland. And so, he used his savings, monetised his land, and single-handedly constructed a 38-km long road connecting some of the most remote parts of his neighbourhood in Ladakh. 5 donkeys and a JCB backhoe loader came to his aid as he set out on this audacious path. Constructing a road at this altitude and under inclement weather is nothing short of an extraordinary feat. And by opening the door to the outside world, he changed the future for his part of the world.

And then there's 72-year-old environmentalist Tulsi Gowda from Honnali village in Karnataka, who received the Padma Shri award in the Rashtrapati Bhavan barefoot. She received no formal education and yet is known as the "Encyclopedia of Forest" due to her deep knowledge of diverse species of plants and herbs. Gowda has spent over 60 years as a worker at the Karnataka Forest Department. She is renowned for her ability to identify the mother tree of every tree in the forest, no matter its size or location. Over the years, she has planted more than 30,000 saplings and actively contributed to protecting the environment. By understanding nature, she has championed biodiversity and truly changed her part of the world.

There's also Harekala Hajabba, a social activist from Mangaluru. He never went to school and spent years as an orange vendor. And then, one fine day, a foreign tourist asked him about the price of an orange in English. Hajabba couldn't comprehend the question and felt deeply embarrassed. That one incident inspired him to set up a school. Harekala Hajabba's village *Newpadpu* did not have a school for many years. Hajabba invested all his life savings in building a school on one acre of land. Today, that same school has 175 students with classes up to the 10th standard. By offering access to education, he has changed the future of those students.

Harekala Hajabba, Tulsi Gowda and Chhultim Chhonjor had one thing in common. They dared to dream of a future beyond what was ordained by their circumstances. The life stories that I shared are testament to the fact that small changes can lead to big impact. It is up to you to seize opportunities and take that leap of faith. There may have never been a better time to be young and well qualified. The world is truly your canvas. And I look forward to your magic on the canvas.

Good luck and Godspeed !

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VICE CHANCELLOR'S REPORT



Prof. Souvik Bhattacharyya

Hon'ble Chief Guest Professor Madan Pillutla, Distinguished Alumnus Awardees, Distinguished Service Awardees, Director Sudhirkumar Barai, Members of the Senate, Registrar, Faculty and Staff of Pilani campus, colleagues from other campuses, other dignitaries and attendees, and of course the graduating Class of 2022 and their proud parents – I am delighted to extend a very warm welcome to you all to **Convocation 2022 of BITS Pilani, Pilani Campus.**

It is a special honour to have Prof Madan Pillutla with us as the Chief Guest, who himself is a Distinguished Alumnus Award winner. Prof Pillutla, our graduating class and all of us are eagerly looking forward to your inspiring words.

This is a day of grand celebration, for the degree recipients, their families and all of us from BITS Pilani. Let me begin by congratulating the graduating students - your efforts are being recognized and eminently rewarded today; indeed, a momentous occasion for you, and equally significant, if not even more so, for your parents and families. It's a feeling of euphoria to be here amongst you all - sincerely grateful to be a part of this blissful and joyous celebration.

As per convention, I will present an overview to highlight the achievements of the Institute across all the campuses during AY 2021-22, while Director Barai will present the Pilani campus report.

During the disruptive COVID years, BITS Pilani demonstrated admirable resilience in ensuring a smooth functioning of the teaching-learning processes, research and every other functions of the University. Our administration, faculty, staff, and students remained steadfast, focused and creative in their response to the pandemic. The CRTs – Campus Response Teams – in each campus rendered a fabulous service in these challenging times. BITSians across the globe came forward generously to support those in need. I believe we all came out of this stronger and wiser.

Last year, our Mumbai campus was launched in the form of BITS School of Management (BITSoM). It now has 270 students, and full offline classes for both the first and second year batches are in full swing. Every fortnight, academic luminaries from some of the top universities in the world can be seen on campus, teaching, enabling and energising our students. At BITSoM, we have been able to craft a highly tailored personal development plan which helps them to custom design their learning journey, enabled by a mentoring program supported by 45 corporate leaders. Many faculty have rated the quality of the batch on par with classes they have taught at institutes like the Indian School of Business and others. Early signs from the industry suggest that our students have performed very well in their internships with several marquee companies making pre-placement offers to the founding class. We are also making good

progress on building our permanent campus at Kalyan, and are on track to have this ready by December 2023.

It's a pleasure to share with you the statistics of this graduating class. **12,492** students will graduate comprising 20.7% female students. Among the graduates from on-campus programs, 4032 are from FD or UG programs (19% female students), 864 will receive HD/PG degrees (27.8% female students). I am extremely delighted to inform you that 167 research scholars (with 32.3% female students) will graduate with a PhD degree – that is the highest ever doctoral degrees in a year, 40% more than the previous best, indicating sustained progress in our planned focus on research.

You are aware of BITS Pilani's pioneering role in offering UG, PG and Certificate programmes called Work Integrated Learning Program (WILP) – today the enrolment has grown to over **36,500** working professionals. This year 7,429 WILP students are graduating having nearly 22% female students. Of these, 955 are in UG (7.7% female students), 6208 are in PG (23.7% female students) and 266 are in Post Graduate Diploma (28.9% female students) who will graduate with a formal degree for the first time in their lives or will have upgraded their skills to keep up with a fast changing world.

Doctoral student enrolment has grown at a CAGR of over 20% in the last 5 years, now it is 1752 –42.3% of which are female scholars. We are looking to garner additional financial support from various sources for a greater population of research scholars since this forms the core workforce to enhance research quantity and quality. Institute doctoral fellowship is at par with the IITs for several years now. Across the three Indian campuses, the Institute fellowship today supports around 58% of the PhD students. The number of such scholarships from CSIR, UGC or supported by research grants has grown significantly as well.

BITS Pilani is continuously thriving to enhance its research competitiveness by securing external research funding. Despite the pandemic, new external grant of Rs. 61.8 cr was received in FY22. The 5-year average annual grant increased by 306% from Rs. 18.5 cr/yr (FY13-17) to Rs. 75.1 cr/yr (FY18-21). FY22 grants include international grant of Rs. 4.2 cr, Industry grant of Rs. 4.7 cr, Alumni research support of Rs. 4.8 cr and CSR grant of nearly 1.0 cr. In addition to the new projects sanctioned in FY22, 416 externally funded projects worth Rs. 265.2 cr were ongoing.

In 2021, 40 patent applications were filed, highest ever in a year, 11 patents were granted.

The research publication metrics continue to improve vigorously in terms of both quality and quantity. Annual number of publications has grown with a CAGR of 23% since 2017 and the CAGR for annual number of citations is nearly 35%. We continue to focus on the quality of our publications. The current Scopus h-index is 138, with an annual citations/paper of 25 in 2021 which compares favourably with the leading IITs. In 2021, 41% of the articles were published in Scimago Scientific Journal Ranking Q1 Journals and 22.8% in Q2 Journals. Of our indexed publications, over 33% has at least one international co-author, and over 41% has at least one national co-author. Internationally co-authored publications have grown at a CAGR of nearly 28% since 2017. The average impact factor continues to rise with a current value of 3.91.

Here are a few notable grants we received during the year:

- Two major grants were received:
 - i) DBT BUILDER grant of Rs 21.75 cr to establish Interdisciplinary Research Centres in Life Sciences - the 3 Indian campuses are participating in these projects involving Biological Sciences, Chemistry, Pharmacy, Chemical Engg, and EEE.
 - ii) DST-PURSE grant of Rs 23.4 cr in which Pilani and Hyderabad campuses are participating.

- Rs 2.88 cr to BITS Goa Innovation Incubation Entrepreneurship Society (BGIIES) led by Prof Mridula Goel for the Startup India Seed fund scheme under Department for Promotion of Industry and Internal Trade (DPIIT).
- BITS PIED Society, Pilani campus received grants of Rs 4 Cr for entrepreneurship development under Startup India's Seed Fund Scheme of DPIIT, and Rs 3 Cr under the Nidhi Seed Support Scheme of DST.
- Prof Srikanth Mutnuri received a grant of \$280,000 from Bill and Melinda Gates Foundation on Generation 2 Reinvented Toilet Phase III
- Rs. 1.47 cr to Pilani campus (Prof Navneet Goyal and Prof SK Barai) from Ministry of Tribal Affairs.
- DST-FIST infrastructure grants: Rs. 1.35 cr to Chemical Engg, Hyderabad campus and Rs. 1.1 cr to Computer Science, Pilani campus.
- Dr. Santosh Kumar, Dept. of Biological Sciences, Goa Campus received a grant of Rs. 1.13 cr as DBT- Ramalingaswami Re-entry Fellowship.
- Dr. Tanmay Banerjee, Department of Chemistry, Pilani campus received 1.19 cr from SERB towards Ramanujan Fellowship.
- Prof. Samit Chattopadhyay, Department of Biological Sciences was approved a project grant of Rs 95 L from DBT entitled Transcriptional regulation of human Telomerase (hTERT) by Chromatin remodelling protein SMAR1
- Rs. 78 L from the Royal Norwegian Embassy to Prof Souvik Bhattacharyya and Prof M S Dasgupta, Department of Mechanical Engineering, Pilani campus.
- 70.2 L from DST towards Science for Equity, Empowerment and Development to Prof Srikanta Routroy, Dept of Mechanical Engg, Pilani campus.
- Prof Srikanth Mutnuri, with Dr. Anasuya Ganguly and Dr. Tusar Saha, Dept of Biological Sciences, Goa Campus received a grant of Rs 83.3 L from BIRAC and BMGF towards Wastewater based epidemiology and screening for Covid19.

As a next step towards enabling technology licencing and commercialization, a **Technology Transfer Office** (TTO) was created during FY22. This will significantly strengthen the innovation funnel by managing and protecting the intellectual property (IP) and furthermore facilitate the commercialization of IP through licensing, patenting or spin-offs as well as increasing the effective academia–industry partnership with national and international organizations.

BITS Pilani has established a **Technology Innovation Hub** (TIH) on Bio-Cyber Physical Systems under the *National Mission on Interdisciplinary Cyber Physical Systems* (NM-ICPS) of DST with a grant of Rs. 125 cr for 5 years; BITS Pilani is the only non-Government institute to have received this grant. A Section 8 company - BITS BioCyTiH Foundation – led by a full-time CEO has started execution of its core activities such as cutting edge translational research, development of technology platforms, skilling program etc. Around 30 strategic projects, including the ones from the two selected spoke institutes, have been initiated led by various PIs with 18 Project PhD Fellowships awarded during FY22. The focus areas are human diseases, cancer research, epigenetics, bioprocess engineering, biomaterials, nanotechnology and computational biology. Some of the projects are already in higher TRL and they will be pursuing the scale-up and create bigger societal and economic impact. These projects are expected to lead to some products over the next 3 to 4 years.

Alumni Relations: BITS Pilani now has over 1.75 L alumni, including this year's graduates, comprising nearly 70,000 on-campus alumni and over 1.05 L from the WILP. In early August, the 10th edition of BITSians' Day was observed in 140 cities of 40+ countries across 6 continents; it indeed is one of the strongest alumni networks today. BITS Alumni have been very supportive on various institute initiatives. In the last 5 years, we raised Rs. 45 cr from the alumni and through CSR schemes.

Alumni came together to donate over Rs. 75 L to support COVID affected contractual labour/ small shopkeepers/ drivers and other support staff in a unique monthly ration drive, lasting 5 months for people in and around the Indian campuses. We have progressed well in the *BITS Pilani Incubation and Innovation Centre* project at Pilani, a 38500 sq. ft. facility with a project cost of Rs. 21 cr, entirely funded by alumni and CSR support. We acknowledge this impactful support with deep gratitude. We are engaging more effectively with our Alumni and leveraging on their support. Over 300 BITSian success stories were shared by the Alumni Relations team on AlmaConnect and other social media platforms.

BITS Distinguished Alumnus Awards (DAA) are conferred for exemplary achievements in Academia and Research, Corporate Leadership, and Entrepreneurship/ Public Life / Philanthropy. This year two new awards have been introduced - **BITS Ratna Award** and **Distinguished Services Award**.

BITS Ratna Award has been instituted as the highest recognition for a BITS alumnus to recognize outstanding contributions and services to the institute and its stakeholders and the society at large, resulting in visible impact of the maximum order.

Distinguished Services Award (DSA) has been instituted to recognize outstanding contributions to BITS, the community and the society.

The DAA for 2020 and 2021 could not be personally conferred as no Convocation was held because of COVID19. I am delighted that many of these recipients will be collecting those awards during this year's Convocation. 18 awards have been announced for the year 2022 – One BITS Ratna Award, Twelve (including one shared by two Alumni) DAAs and five DSAs.

The 2022 **BITS Ratna Award** has been conferred on Shri Prashanth Palakurthi, graduated from BITS Pilani in 1984 with an MSc in Mathematics and Master of Management Studies. He is the founder of Reflexis systems (2001) which was acquired by Zebra Technologies in 2020. In 2018, Shri Palakurthi made a generous donation of \$1M to his alma mater, the largest individual pledge ever received by BITS Pilani, for setting up the Anuradha and Prashanth Palakurthi Centre for Artificial Intelligence Research (APCAIR) and also to support the Innovation Centre on Pilani campus. He would be receiving the award in the Hyderabad Campus Convocation ceremony.

Rankings: In the QS World University Subject Rankings 2022, BITS is ranked in 9 subjects with Pharmacy topping the list for us at a World Rank of 101-150 and an India Rank of 2. In NIRF 2022 University category, BITS has been ranked at 18. BITS was ranked 2nd in Life Sciences among Indian Institutes by Times Higher Education (THE) World University Subject Rankings 2022 with a World Rank of 251-300. We are paying attention to the perceived gaps in our performance, building a branding and communications team and strengthening the ranking, data and insights group under the *Institutional Knowledge Analysis Cell*.

Faculty recruitment continues to be an area of critical focus. During the year, 105 offers were made, 60 new faculty members joined the Institute and 38 more are expected to join soon. Recruitment and retention of quality faculty remains a significant challenge for the institute.

One of the key pillars in the growth narrative of BITS Pilani for the last five decades has been innovation across multiple functions of the University. Several pedagogic innovations coupled with new courses and programmes were introduced. *Teaching Learning Centre*, Pilani Campus developed and launched *Prashikshan*, an online self-paced learning platform, to create a technology-enabled self-learning framework where faculty can learn various pedagogical methods, instructional objectives, assessment, and evaluation techniques including preparation of course handouts based on taxonomy. During the Covid disrupted years, several technology intervened pedagogic techniques were deployed to enable a smooth instructional delivery over the virtual mode.

The entrepreneurship ecosystem is being strengthened through various innovation/incubation platforms of the institute (e.g. CIIE, CEL, TBIs etc.) that has led to around 10% of the BITSians founding enterprises – sooner or later. BITS Pilani has been contributing substantially in the start-up canvas of the country with at least a dozen BITSian unicorns presently with one of them being a decacorn and over 7400 BITSian founders/co-founders globally. \$32 B is the valuation of the BITSian Unicorns. Enterprises incubated with our TBIs receive four types of support comprising nearly 60 reputed partners to help Start-ups Succeed – Banking, Legal and CA; Marketing/Incubators; Technology Credits; and Investor Connect. Our TBIs have incubated 170 start-ups since inception and about Rs 3.5 cr of seed grant have been disbursed.

The institute has been proactive on internationalization - in twined programs, research partnerships and mobility. We signed MoU with 16 international universities during the year including a joint PhD agreement. 250+ students spent a semester abroad in prestigious universities. To strengthen networking and cooperation, BITS Pilani organized conferences, webinars and joint sessions in association with University of Queensland, United States-India Educational Foundation, London Business School, UC Berkeley, Memorial University of Newfoundland-Canada, German Academic Exchange Service (DAAD), British Council, NTNU and SINTEF Norway, N+i network and Campus France.

Industry engagement is one of the cornerstones of the educational philosophy of BITS Pilani and it has played a pioneering role in offering UG, PG and Certificate programmes to working industry professionals. The Practice School (PS) is an educational innovation of BITS Pilani that links industry experience with university instruction. In recent times the program has grown substantially. In AY 2021-22, the number of students in PS-II was 3657 (FD=2933, HD=724) and number of PS-II stations was 576. Let me share an outstanding impact data of Practice School as a curricular framework - 40% of the PS-II batch obtained a Pre-Placement Offer (PPO) – 891 in FD and 570 in HD. Total stipend received by our students was ₹ 98.7 cr – another extraordinary figure.

It's a joy for me to mention a few notable awards and laurels conferred on our Faculty Members and Students. Director, Pilani Campus will present more details of such laurels for Pilani Campus during his address.

Faculty Accolades

Awards

- Prof SB Singh: elected a Fellow of the American Society of Civil Engineers.
- Prof. Ashwin Srinivasan: The AI for Social Good Award 2021, Google Research in partnership with Google.org and Google University Relations.
- Prof Chennu Ranganayakulu: Alexander von Humboldt scholarship grant revisiting Fellowship program for Germany for 3 months.

- Prof Suman Kapur: DMA All India Women Entrepreneurs Award 2021 in the category of Super achievers. She was also featured in the 2022 Booklet on **75 Successful Biotech Women Entrepreneurs Supported by BIRAC**.
- Dr Naveen Gupta (EEE, Goa Campus), Dr Lov Kumar (CSIS, Hyderabad), Dr Saket Verma (EEE, Pilani), Divyansh Patel (Mechanical Engg, Pilani) and Dr STP Srinivas (EEE, Hyderabad): SERB International Research Experience (SIRE) Award for 2022-23.
- Dr. Arnab Banerjee: G P Talwar Young scientist award 2021 - Indian Society for the Study of Reproduction and Fertility (ISSRF).
- Dr. Nishith Gupta: Wellcome Trust - DBT Senior Fellowship and Indo-Japan Scholar Mobility Program for bilateral exchange with Osaka University.

Honorable Appointments

- Prof. Vinayak Naik: Member of Expert Committee for SERB Special Call on *Wearable Electronics for Biomedical Applications*.
- Prof D Sriram: co-opted Member, SERB PAC on Interdisciplinary Biological Sciences.
- Prof. Sajeli Begum: co-opted Member, SERB PAC on Biomedical and Health Sciences
- Prof. Sunil Bhand: Member, Research Advisory Committee of Central Institute of Post-Harvest Engg Technology, ICAR and also of PRISM – Impact Project Review committee of DSIR.
- Prof Srikanth Mutnuri: Scientific Panel member for Alcoholic Beverages - Food Safety and Standards Authority of India (FSSAI).
- Dr I Sreedhar: Editorial Board Member of the Journal - Fluid Dynamics and Materials Processing.
- Dr Anasua Guha Ray (Civil Engg, Hyderabad Campus) and Dr Anupama Mittal (Pharmacy, Pilani Campus): Joint Faculty at Civil & Environmental Engg and School of Biomedical & Health Sciences, respectively, of Hiroshima University, Japan.
- Dr Sailaja Nandigama: Member, Board of Directors of Association for Environmental Studies and Sciences (AESS), USA.
- Prof Chennu Ranganayakulu: Member of Section Committee III [Mechanical Engg] of Indian National Academy of Engineering.
- Prof Souvik Bhattacharyya: Member of National Executive Committee, FICCI and National Co-Chair of FICCI Higher Education Committee; Member of the Executive Council of Shastri Indo-Canada Institute; Expert Member, Senate of IIT Jodhpur; Member of Section Committee III [Mechanical Engg] of Indian National Academy of Engineering and re-appointed as Member, Expert Advisory Committee, DST Advanced Manufacturing Technology.
- Prof Nishith Gupta: International Adjunct Faculty from China Agricultural University (CAU), Beijing and Editorial Board Member of Communications Biology (Nature).
- Prof Prasanta K Sahoo: Adjunct Professor at University of Manitoba, Canada.
- Dr Shashank Khurana: Member of the Applied Aerodynamics Technical Committee of AIAA - American Institute of Aeronautics & Astronautics.

Student Achievements

- 10 young BITS alumni, many of them in the graduating class of 2022, have been featured in the **Forbes 30 under 30 – Asia 2022** list that highlights Young Entrepreneurs and Rising Stars who are redefining the future of business and society in Asia and who are inspiring change and driving innovation in their respective fields. These 10 winners are Malhar Patil, Rajat Gupta, Shourya Agarwal, Harish Uthayakumar and Shreyans Sancheti from Goa Campus, Ahmed Faraaz, Harshit Awasthi, Sashakt Tripathi, Prasanna Date, and Sajal Khanna from Pilani campus.
- Team Janus of SEDS - Students for Exploration and Development of Space - Hyderabad Campus and mentored by faculty advisor Dr. K Supradeepan was placed 23rd worldwide in CanSat 2022 held at Virginia Tech University.
- Project Kratos team Goa Campus led by Ithihas Madala and supervised by Prof. Toby Joseph was ranked first among the Indian competitors, 2nd in Asia, 12th worldwide in Science Task category and finished 23rd worldwide at the University Rover Challenge 2022 held at NASA Mars Desert Research Station, Utah.
- Abhishesh Pal (PhD Scholar, Hyderabad Campus): Fulbright-Nehru Doctoral Research Fellowships in Agricultural Sciences to work at University of Illinois, Urbana-Champaign
- Web application 'HealthAPPY' developed by Aditya Mishra, Dhruv Nagpal and Rohit Garg of Goa Campus: Winner in 'COVID-19 Healthcare App Challenge' conducted by IQVIA Technologies and Microsoft. The team donated the \$4,500 Prize money to a non-profit NGO.
- Bhanupratap Bhardwaj, Chirag Goyle and Heman K Shah of Goa Campus won India's most prestigious and IIM Ahmedabad's Annual Flagship Case Study Competition, *Armageddon* at their annual *Red Bricks Summit*. This is the first time that an UG team has won.
- 3 Goa Campus teams were the winners in Revels 2022, Manipal Institute of Technology's Sports and Cultural Fest. Men's Badminton team was crowned champions while Sushil Nayak was awarded the best men's player trophy, the women's Badminton team secured Runner-up Position. Men's Table Tennis Team secured the Runner-up Position.
- Atishay Jain: MITACS Globalink Research Internship award, sponsored by the Govt of Canada.
- Satyam Bansal, Ansh Srivastava, and Aayush Nayak have been awarded the Chanakya UG-Fellowship from iHUB DivyaSampark, IIT Roorkee.
- Team Autochain of Dubai Campus bagged the first prize (AED 55,000) and SolarGridX bagged the 3rd prize (AED 18,000) at the 1st UAE University Blockchain Challenge finals organised by Heriot Watt University in collaboration with NEM Blockchain foundation and Dubai Silicon Oasis Authority.

That concludes the report part of this address - it is time now for some reflections and thoughts for the Graduating class of 2022.

Let us spare a thought on the extraordinary time we experienced since March 2020. What have we collectively gone through? What is out there waiting for you? How can the lessons from the last few years be enmeshed into our future decisions?

Long before Covid-19 came and climate change was in the margins of our thoughts, we still faced what is collectively called *the perfect storm* coined by John Beddington - the former Scientific Adviser to the British Government - the crisis of food shortages, scarce water, and insufficient energy resources that he predicted would hit us by 2030. The future generation will have to deal with and solve the turbulence that

would be caused by the *perfect storm*. We are witnessing the coming of the *perfect storm* but we need not despair because humanity has the power to address and solve the challenge.

Let's dwell on a few selected themes now.

First on Society, Technology and overcoming Turbulence.

- Turbulence and crisis can bring people together, it can also lead to distrust and conflicts. But we succeed when we *join hands together*- when we collaborate.

- Resilience and grit: human spirit is enduring and our collective resilience during turbulence is critical. We could see that globally when scientists, engineers and people from all walks of life came together to build vaccines, PPEs, medical equipment, oxygen concentrators during the pandemic.

- Perseverance and focus: when we combine resilience and grit with perseverance and focus, there is high chance for magic to happen.

- Building national *self-reliance* is critical in a crisis: we could see how it was important that India could build and manufacture its own vaccines and supply as well to other nations.

This self-reliance has to come from *innovation and entrepreneurship*: BITS has a superb legacy of innovation and entrepreneurship not just in technological innovation but also social innovation (Nirmaan is a good example). To be self-reliant we also need to be focused on *excellence* - excellence in creating products and processes that are enduring.

- Social and economic upliftment, equitable society, and gender equity are goals that are at the core of human progress and technology has to play a complementary role in this progress.

Frontiers in technology

- Technological change is growing at a speed that is truly phenomenal: there is convergence and singularity - we are able to not just see the molecular aspects of cell at one end or the spectacular snapshot of nearly every existing protein (200 million of them) as presented by Alphabet's AI subsidiary – DeepMind's AlphaFold program, but also vastness of the universe (James Webb telescope for example), we can control machines and automate them to take decisions - we are able to collect humongous amount of data on ourselves, our health, our behaviour, and our world - this combined with our ingenuity is giving us predictive power that had not been witnessed until now. Several pathways for humanity's destiny/future will emerge from this "churn"- my heart is bursting with awe as well as joy to think of each one of you playing a role in moulding of this future like our illustrious alumni.

On Real world, Success, Playbook for life and the Future

- Real world is complex, not smooth and ever-changing - navigating that will need continuous learning.

- Stepping beyond the comfort zone is where most learning happens and that needs fearlessness.

- We have to tell our own stories, our own narratives, our own success paradigms, and our own vision of the future. Is there a playbook for life? What is important is the experiential journey. Stay connected, network, absorb from and during the journey.

- The difference between overnight success and an enduring success. Sometimes achieving success that is enduring takes longer and it can be more satisfying in the end.

- seek diversity of experiences in early years, travel more, don't hesitate to roll the dice and seek new vistas, recognise that mentorship and guidance throughout your journey will play an important role.

This graduating class will define its own playbook and future. What kind of future are you imagining? Who are you going to share the fruits of your success with?

Finally, on Compassion and Empathy

Technology can help better our condition but human touch is even more critical - the primacy of basic human affection, kindness, ethics and compassion remains while we progress technologically. "Be kind whenever possible, it is always possible" said the Dalai Lama. Indeed, the ripple effect of kindness and compassion can create a wonderful world. While you all strive to do well in life, you must also do some good – must wipe some tears, and reduce some sufferings of people. There is no nobler calling than advancing human well-being.

Protect your reputation for having the highest ethical standards. Victory without virtue has no value.

Here are two favourite quotes by Mahatma Gandhi - "there is more to life than simply increasing its speed". Remember that and don't miss epiphanies hidden in the everyday. And "be the change that you wish to see in the world"- and for that transformation to happen, the time is now!

Prof Pillutla - thank you, we are delighted to have you with us on this joyous occasion. My faculty colleagues, staff and students are as grateful as I am.

I would also like to thank our Chancellor, Dr Kumar Mangalam Birla, and members of the Board of Governors for their unflinching support to BITS Pilani.

Finally, I express deep gratitude for the campus Directors and the entire leadership, the faculty and staff members for their commitment to excel. I also thank our alumni for their excellent support. Together, they all are ensuring that BITS Pilani remains a top destination for the students, faculty members, research funds, innovators and recruiters.

Congratulations, class of 2022! You are stepping out of the finest crucibles of life. As a graduate and ambassador of BITS Pilani, you are the torchbearer of an extremely rich heritage. Be thankful. Please remember to give back - to all those who made this day possible and also to all those who perhaps can't even dream of a day like today. I wish you all the very best for now and always!

Thank you all very much.

Souvik Bhattacharyya
Vice Chancellor
BITS Pilani
Pilani | Dubai | Goa | Hyderabad | Mumbai

* * *

REPORT BY THE DIRECTOR, PILANI CAMPUS



Prof. Sudhirkumar Barai

Chief Guest Prof. Mandan Pillutla, Dean Indian School of Business, Prof. Souvik Bhattacharyya, Vice Chancellor BITS Pilani; Directors of the other campuses, members of Board of Governors, General Body, and the Senate, recipients of Distinguished Alumnus Award 2022, guests, alumni of the Institute, colleagues from other three campuses, students, faculty members and staff, members of the press, and most importantly- graduating students and their proud family members, good morning to all!

Participating in a physical convocation ceremony with friends, wearing graduation attire, and getting degree certificates is an essential ceremonial end to a student's academic life in college. I am delighted to welcome you all today, in person, to Convocation 2022 of Pilani Campus, which was not possible for the past two years.

These past two years have been a roller coaster ride; COVID-19 significantly disrupted the education industry. Despite the challenge of providing quality education in a virtual environment, BITS Pilani maintained its high standards by synergizing our existing resources with various technological advancements. Our Lecture Theatre Complexes were equipped with advanced video processing units so that students could attend classes both in-person and virtually. The faith placed by students in our exceptional academic prowess is showcased by the number of candidates appearing for BITSAT.

We ensured that standards were upheld in these challenging times by reviewing our education policies and classroom delivery style through various senate and department-level review meetings. The support from our faculty, administrative, and office staff was impeccable, and we would like to thank them wholeheartedly for their hard work and dedication. We would also like to thank our alumni who stepped forward and took numerous initiatives to help the affected people across the globe. Alumni donated more than 75 lakhs Rs. to support contractual labors, small shopkeepers, washerman, Rediwallahas, rikshaw pullers, and other essential staff. They were involved in serving the student community on campus, providing ration kits for several months under Daily Wager 2020 and the COVID-19 campaign. Our priority was to ensure the safety of all the stakeholders of the Institute. Several steps were taken in this direction, including organizing vaccination drives on campus and sanitization of the entire campus premise.

Let us now delve deep into various significant happenings at the Pilani campus.

Graduating Students

Today, 1802 students are receiving degrees, out of which 1365 (189 Girls) will receive their undergraduate degree, 382(115 Girls) will receive their graduate degree, and 55 (20 Girls) will receive their doctorate.

We are also felicitating three students of this campus for their exceptional academic performance throughout the four years. Mr. Gaurav Bellal Natesh (2018A1PS0027P), Mr. Himanshu Singh (2018A1PS0025P), and Mr. Himanshu Chaturvedi (2018A10031P) will receive the Gold Medal, Silver Medal, and Bronze Medal, respectively. Please join me in congratulating them and their families.

You will be happy to know that in the academic year 2021-22, a total of 974 students in the first degree (including nine board toppers and 23 under the International Students Admission Scheme) and 410 students in higher degree programs (including 61 MBA) were admitted. For Ph.D. admission, 227 offers were made, of which 203 joined. A total of 651 Ph.D. students are on the rolls at the Pilani campus, out of which 526 are Full-Time scholars, 116 Part Time scholars, 1 Lecturer, and eight are under Ph.D.

Aspirants scheme. 98 Ph.D. students have their fellowships awarded by external funding agencies, and 330 Ph.D. students are on Institute fellowships. 52 Ph.D. viva voce exams were conducted during this academic year at Pilani Campus.

Placement Overview

87% of students (90% in First Degree and 80% in Higher Degree) have been placed through campus interviews and Summer Internship pre-placement offers as of mid-July 2022. The current median salary is Rs.18 Lac per annum, a significant increase from 13 Lac per annum last year. The total number of offers secured through the Summer Internship is 140, with the highest stipend offered at 3.16 lakhs per month-an increase of approximately 60% from last year. Our students have secured international placements in DaVinci Derivatives, Amsterdam (162000 Euros), Tredence Analytics in the US (\$85000), and the Landmark Group Dubai (AED 120000). The highest domestic CTC was Rs 90 LPA by Polygon Systems. Some notable companies which hired through campus interviews in 2021-22 were Google, Microsoft, DE Shaw, Cisco, Samsung, Amazon, Flipkart, Myntra, Goldman Sachs, Biocon, Pfizer, Cipla, Qualcomm, Texas Instruments, Micron, BCG, Dalberg, Schlumberger, GAIL, Cairn India, Hero Moto Corp, Bajaj Auto, Axis Bank, ICICI Bank, AU Bank, Price Waterhouse Cooper, KPMG, Deloitte and Ernst & Young.

Innovation, Incubation and Entrepreneurship

To support the entrepreneurial ventures, BITS received Rs 4 Cr for entrepreneurship development under Startup India's Seed Fund Scheme from DPIIT and 3 Cr under Nidhi Seed Support Scheme from DST. Forty-one startups were Selected for Incubation and the Total funds disbursed were Rs. 1.39 Cr. PIEDS organized an e-Conclave for APOGEE2022 during 16-17 April. Entrepreneurial cell organized two PAN India level workshops on intellectual property for faculty and students in collaboration with KPMG on January 11, 2022, and National intellectual property awareness mission NIPPAM on 25th June 2022. 07 Patents were granted to faculty members, namely, Dr. NN Sharma, Dr. R Mahesh, Dr. Rajeev Gupta, Dr. Anupama Mittal, and Dr. Gautam Singhvi, Dr. Deepak Chitkara. The startup RTI Wala was selected as a Top 15 Social Impact Startups by the Impact Labs and Govt. of Telangana for the SE Program in April 2022, selected among the Top 120 Startups across South East Asia by Stanford University for the Seed Spark program in March 2022. Our startup Evolve was adjudged as the top app on Google Play Store by Google in Mental Health Space and was also selected to be part of the App scale Academy, an initiative by MeITY and Google, and raised a \$300 investment

Faculty Recruitment

A total of 13 new faculty members have joined the Pilani campus. One of the faculty members received the OPERA award. Sixty-six faculty members from the Pilani campus have been promoted to the next level. Assistant to Associate professor – 38, Associate to Professor- 21, Professor to Senior Professor – 7.

Sponsored Research

The faculty members of this campus are known for their educational innovation and thrive on high-quality, productive research. The number of ongoing projects is 163, which is worth Rs 72.64 Cr. However, the number of projects sanctioned in FY 2021-2023 is 68, worth Rs 38 Cr. Key Govt. Funding agencies are DEST, SERB, DBT, ICMR, CSIR, and DRDO.-Sponsored Consultancy and Research Division (SRCD) has taken important initiatives. The SRCD has launched an Online portal for applying fresh projects to the funding agencies and SRCD Newsletter (02 issues in year) to disseminate the status of sponsored research and consultancy project activities to our faculty members and our esteemed alumni.

Achievements of the Departments

The Department of Biological Sciences was ranked 2nd in Life Sciences among Indian Institutes by Times Higher Education (THE) World University Subject Rankings 2022 (WUR: 251-300). A patent for "Rapid non-enzymatic process for the reduction of chromium (VI) to chromium (III) by the Nostoc calcicola immobilized on silica gel" was granted by the Government of India. The Department also organized a Virtual Symposium on "Informatics-Driven Advances in Biological Sciences" in collaboration with Asia Pacific Bioinformatics Interaction and Networking Society (APBIans) on March 2, 2022.

Dr. Amit from the **Department of Chemical engineering** has received Best Paper Presentation Award at International Conference on Advances in Water Treatment and Management (ICAWTM-22) held at PDEU, Gandhinagar, during 25 - 26 March 2022. The Department organized an International Conference on Nanotechnology for Sustainable Living & Environment (ICON-NSLE) during 14-16 April 2022.

Professor Anil Kumar of the **Department of Chemistry** received CRSI Bronze Medal (2020) for significant contributions to Chemistry in the area of organic synthesis at the 27th CRSI-NSC held at IISER Kolkata during September 26-30, 2021.

The Department of Civil Engineering conducted many events. Prof. Shamsher Bahadur Singh conducted One Day Workshop on FRP Materials and Sustainable Structures on March 4, 2022. This workshop was a part of a collaborative research project between Michigan State University, USA, Indian Institute of Technology (IIT) Delhi, and Birla Institute of Technology & Science (BITS) Pilani. Prof. Singh organized a 5-day AICTE Training and Learning (ATAL) workshop on Faculty Development Program, two DRDO-BITS Pilani online workshops for DRDO Scientists and BITS Pilani faculty members, and a Workshop on "Bio-Based Fiber Reinforced Polymer Composites for Civil Engineering Infrastructure." Prof. Rajiv Gupta conducted a 15 days training program for Delhi Jal Board Officers. He also organized a one-day workshop on "Sustainability in Civil Engineering." Prof. Rajiv Gupta and Prof. Anupam Singhal are part of the Empanelment of Institution as Environmental Auditor appointed by MoEF & CC, Government of India, Nodal officer, Rajasthan State Pollution Control Board. The patent was granted to Prof. Anupam Singhal, Prof. Rajiv Gupta, and Arun Nihal Singh for A formulation for reducing fluoride and total dissolved solids in water and the process for reduction thereof.

Prof. Poonam Goyal of the **Department of Computer Science & Information Systems** has been recognized by "[India AI](#)" (a Govt. body which is an initiative of MEITY, NeGD, and NASSCOM) as one of the eight leading women AI researchers in India on International Women's day 2021. A Fulbright scholar, Prof. Arun Somani, Distinguished Professor and Senior Associate Dean, College of Engineering, Iowa State University, visited the Computer Science Department from April 14 to May 25. Prof. Navneet Goel has received a grant from the Ministry of Tribal Affairs as a Co-PI for the AI Intervened Tribal Development project by improving Water Conservation, Livelihood, and Health. Further, he has received International Project Funding: Victoria Government, Australia (SMRP-VESKI) for the project on Making data-driven quality management accessible to small-scale dairy cooperatives in India in collaboration with IIT Kanpur and La Trobe University, Australia. Prof. Goyal has been involved in BITS Pilani and Mercedes-Benz Research & Development India (MBRDI) collaboration on multiple AI and Federated Learning projects.

Prof. A. K. Giri of the **Department of Economics and Finance** received an academic excellence award from the KTK outstanding achievers and education foundation, New Delhi. Dr. Balakrushna Padhi was associated with the NITI Aayog as an expert research team member to prepare India's Booming Gig and Platform Economy report 2022. The Department added two labs: FinTech Lab with Bloomberg Terminal and Teaching Labs.

Dr. Sandeep Joshi from the **Department of Electrical and Electronics Engineering (EEE)** was elected as a Fellow of the Institution of Electronics and Telecommunication Engineers (IETE) in January 2022. He was also invited as an Educational Consultant in the Pearson International Digital Advisory Community Program (2021-22). Dr. Sainath Bitragunta from the EEE department won best paper awards at International Conference on Electronics, Computing and Communication Technologies (IEEE CONECCT), Bangalore, India, Jul. 2021, and the 2nd International Conference on Sports Engineering, Jodhpur, Rajasthan, India, Mar. 2022. Dr. Vinay Chamola from EEE Department got promoted to Area Editor of the IEEE Internet of Things Magazine and associate editor of IEEE Networking letters. He also organized workshops at the reputed IEEE Globecom 2021 and IEEE INFOCOM 2022 conferences.

From **Humanities and Social Science Department**, Prof Sangeeta Sharma received the AIMS International Outstanding Women Management Teacher Award by the Association of Indian Management Scholars, International USA. Prof. Sailaja Nandigama was a Special Issue Editor for 'Joint Special Issue with the Journal of International Women's Studies and Wagadu. She is also elected as a member of the Nominations Committee (2021-2023) of the Association for Environmental Studies and Sciences (AESS), USA. Dr. Muhammed Afzal P received the National Film Archives of India Film Research Fellowship (2022) for "Melodrama, Romance and Utopian Desire in Early Malayalam Cinema." Prof Tanu Shukla

was appointed as a Consultant by the World Bank. Prof Tanu Shukla and Prof Virendra Singh Nirban have an international Research Collaboration with UAEIRI and British Council-funded research on Market Insight Study. Dr. Prateek was selected for the Fulbright-Nehru Postdoctoral Research Fellowship at Northwestern University, Evanston, Illinois, for 12 months.

The Department of Mathematics organized a one-day "Workshop on Artificial Intelligence Application for Electro-Optical(EO) Sensors (WAIAEOS-2022)". The mathematics department also organized an "International Conference on Advances in Mechanics, Modelling, Computing and Statistics (ICAMMCS 2022)" during March 19-21, 2022.

Dr. Suvarjan Bhattacharya from the **Department of Mechanical Engineering** received Young Faculty Award at the 7th Asian Research Summit 2022. Prof. Saket Verma and Dr. Divyansh Patel received SERB International Research Experience Fellowship SIRE for collaboration with the US energy research institute and Saarland University Saarbrucken, Germany, for two months, respectively. Prof. KS Sangwan was appointed Editor-in-Chief of the Industrial Engineering Journal, IIIE Mumbai. Prof. Mani Sankar Dasgupta received a grant from the Ministry of Your Affairs and Sports to organize the 2nd International Conference on Sports Engineering from 5-7 March 2022.

From the **Department of Pharmacy**, Prof. Anupama Mittal was selected as a cross-appointed Assistant Professor at the Graduate School of Biomedical & Health Sciences, Hiroshima University, from March 2021-March 2023. Department has been ranked 5th in Pharmacy Category as per NIRF-2022 (MHRD, Govt. of INDIA). In the 101-150 band by QS World Subject Rankings-2022 for Pharmacy and Pharmacology. 2nd in India by THE subject rankings 2021 of Life Sciences (includes Department of Biological Sciences) and 250-300 overall.

The Physics Department has been ranked globally in the bracket of 550-500 departments and nationally among 16 departments of the country by the QS ranking agency in 2022. The physics department organized two colloquium series focused on Alumni connect and Nobel prize in Physics themes in the last decade.

The **Department of Management** has introduced the Personality Integration, Leadership Orientation, and Teamwork Program - (P.I.L.O.T) for MBA students. The P.I.L.O.T. initiative equips the students with the necessary competencies in self-awareness, emotional intelligence, communication, teamwork, and leadership orientation.

Teaching Learning Center, BITS Pilani, organized an Intensive Teaching Workshop (ITW) for newly inducted faculty members. ITW provides an opportunity for the recently joined faculty members to understand BITS value systems, Teaching, and Evaluation methodology in BITS, the development of skills engaging the latest technological aids to the teaching-learning process, help faculty in capacity building for curriculum designing and scientific assessment and evaluation. TLC organized several workshops, symposiums, conferences, invited talks, etc. TLC organized "The Teaching-Learning Workshop for Next Generation Academicians" on November 27, 2021. Similarly, four days of FDP on "New Age Pedagogy and Tools for Effective Teaching Learning" from 27-30 January 2022 for Prestige Engineering College (PIEMR), Indore, was conducted.

The Central Workshop procured five 3D printers and a scanner to provide hands-on experience to all first-year students in the upcoming domain of Additive Manufacturing.

Internationalization

- To experience different cultures and perspectives, under the ongoing mobility programs, Twenty-one students of the Institute completed their summer internships in prestigious institutes of countries including the USA, Germany, Canada, and Singapore in the year 2021-22. Sixty-three students spent one semester abroad (2021-22) in prestigious institutes/universities to complete their first-degree theses.
- Nineteen students were provided partial financial assistance by the Institute to pursue a first-degree thesis in foreign universities.
- Presently, sixteen international research projects are ongoing in collaboration with foreign universities. Fifteen research students are pursuing Ph.D. degrees with co-supervisors from foreign

collaborating universities, including EPF France; TU Braunschweig, Germany; Purdue University, USA; University of Minnesota, USA; the Institute of Geology, Karelian Research Centre of the Russian Academy of Sciences; Deutsche Akademie für Digitale Bildung (DADB) Germany.

Laurels by Students

- Mr. Kartik Dank (2020B3A70880P) received first prize at the national Level Hackathon conducted by Red Bricks and an Oculus Quest 2 worth Rs.45,000/-.
- Mr. Sankha Das (2019A7PS0029P) was awarded the DAAD-WISE Research Scholarship. The event was organized by DAAD (German Student Exchange Service) at Deutscher Akademischer Austauschdienst e.V. (DAAD) Kennedyallee.
- Mr. Srujan Deolasee (2019A7TS1139P) received a National Science Foundation (NSF) scholarship for facilitating the Robotics Institute Summer Scholars program at Carnegie Mellon University.
- Mr. Mihika Parag Deshpande (2021A7PS2435P) and his team secured the top 10 National Finalists in Techfest IIT Bombay.
- Mr. Pranav Gupta (2018A7PS0190P), Mr. Sankha Das (2019A7PS0029P), Mr. Harsh Mahajan (2019A7PS0036P), and Mr. Venkatavihan Devaki (2021A7PS0429P) received prestigious Aditya Birla Scholarship for the Academic Year 2021-2022
- Karter's team was one of the four college teams selected to represent India at the international NASA Human Exploration Challenge 2022. The team secured an Overall rank of 5th out of 58 and 2nd Project Review rank in international college teams.
- Two students, Mr. Arpan Bumb (2017A4PS0392P) and Mr. Jivat Neet Kaur (2017A7TS0050P), received Prof. V.S. Rao Foundation Best all-rounder award 2021.
- A team of students of MBA in Business Analytics (Mr. V V Swarat, Ms. Palak Bansal and Mr. Naman Dhameja) Secured National Rank -1 in Bizalytics, a National Level Analytics competition conducted by BIT Mesra.
- A team of students of MBA in Business Analytics (Mr. V V Swarat, Ms. Palak Bansal and Mr. Naman Dhameja) was National Finalists (Top 10) in Marketing Meraki, a Product Development/Launch championship conducted by BITS Pilani, Goa campus.
- Department of Chemistry Scholars received postdoctoral fellowships at many premier institutes. Mr. Vishal Kachwal joined as Postdoctoral Fellow at Oxford University; Ms. Jagrity Chaudhary Joined as a Postdoctoral Fellow at Purdue University, and Mr. Vicky Narain Shinde Joined as Postdoctoral Fellow at Texas A & M University.
- Ms. Monica Malik of the Department of Chemistry was awarded the prestigious Overseas Visiting Doctoral Fellowship (OVDF) by DST New Delhi, India. She joined Purdue University in January - 2022 (for one year) to carry on collaborative research work as a part of her Ph.D. degree.
- Mr. Yadav Nagare of the Department of Chemistry has been awarded the prestigious Prime Minister Fellowship to conduct his Ph.D. research work in the Department.
- Mr. Vishal Kachwal of the Department of Chemistry won the Dalton Transactions Poster Prize at the GIDW Virtual Poster Competition (a 48-hour twitter-event arranged by the Royal Society of Chemistry) in July9-10 2020.
- Ms. Neha Meena of the Department of Chemistry received the ACS-sponsored best poster award at 29th CRSI-NSC organized at IISER Mohali during July 7-9, 2022.
- Mr. Adapa Dharma Teja, a Ph.D. scholar in the Computer Science & Information System Department, was awarded the prestigious Prime Minister research fellowship.
- Mr. Arihant Kumar Singh, the Ph.D. scholar in the Pharmacy department, was awarded the Sun Pharma Science Foundation Science Scholar Award in the Pharmaceutical Science category for 2021.

- Ms. Srividya Gorantly and Ms. Manish Choudhary, Ph.D. scholars of the same Department, secured 2nd and 3rd positions, respectively, in All India' Disso Research Presentations India (DRPI) 2022' under the Central-East-South zone-PhD category.

Sports Activities

- Our students are not only leading in academics but also in extracurricular activities. The students of BITS Pilani, Pilani Campus, participated in UDHGHOSH'22 – IIT KANPUR and won first place in Lawn Tennis (Girls), Powerlifting (Boys) and Table Tennis (Boys). The students of BITS Pilani, Pilani Campus, participated in SPARDHA 2022- IIT BHU and won second place in Hockey (Boys) and third place in Javelin (Boys). The students of BITS Pilani, Pilani Campus, participated in SPORTECH 2022- IIT DELHI and won gold in 400 m (Athletics: boys); won silver in 200 m (Athletics: boys), 4x100 m Relay Boys, Shot-Put (Boys); and won bronze in 4x400 m in Relay (Boys), 4x100 m Mixed Relay, 800 m (Athletics: boys), 5000 m (Athletics: boys), Triple Jump (Boys), badminton (Boys).
- A sports event, **BITS Premier League (BPL)**, was organized between 19-28 November 2021 (on weekends). The event was open to all the students, staff, and faculty members. There were a record 1650+ participants who took part in various indoor and outdoor sports events. Last year, we installed the open gym at the gym ground. In addition, the two cricket practice cages and a new snooker pool table of international measures have been installed at SAC.

NSS Activities

The **NSS BITS Pilani, Pilani Campus** organized the 40th Blood Donation Camp in collaboration with IRCS (Indian Red Cross Society) during 26-27 March 2022, in which a total of 844 units of blood were collected. The NSS BITS Pilani organized an eye Checkup Camp in association with Mahadeo Singhi Eye Hospital, Pilani, on March 23, 2022, where the doctors examined 316 people. A health camp was organized in Hanumantpura village in collaboration with Medical Center Pilani, where 65 patients were checked, and medicines were given.

Closing Remarks

This report summarizes our activities and achievements over the last academic year. All of this has been made possible by our highly dedicated faculty and staff and bright students who are committed to striving hard to take this campus to greater heights. I sincerely thank each one of them. I thank our Chancellor, Vice Chancellor, and other members of the Board of Governors for their constant support and encouragement.

Once again, I congratulate all the students who are being conferred degrees today. As **Swami Vivekananda**- Youth Icon has rightly said, ***“Take up one idea. Make that one idea your life; dream of it; think of it; live on that idea. Let the brain, the body, muscles, nerves, every part of your body be full of that idea, and just leave every other idea alone. This is the way to success, and this is the way great spiritual giants are produced.”***

As you are stepping into a new phase of your life, I am confident you will strive to excel in your chosen field of interest. However, I request that you keep up high standards of work etiquette, professional ethics, and personal integrity.

In the last four or five years, we have nudged each other's lives in various ways, small and big, and even if those memories fade with time, the impact of those moments will stay with us forever.

I've got four words that I want you all to remember. They're significant, and if I leave you with anything, I will leave you with these four words, ***BITS Pilani - It's Magic.***

Thank you for your attention.

Prof. Sudhirkumar Barai
Director, BITS Pilani, Pilani Campus

ADDRESS BY CHIEF GUEST



Dr Madan Pillutla

I am very honoured to be here on the occasion of your convocation and delighted to share in your celebrations. We did not have one at the time when we graduated in 1984. This is therefore my very first BITS Convocation, which makes it all the more special. Let me begin by congratulating those who are graduating from BITS Pilani today. Congratulations to your families too! Your college experience was different and harder because of COVID-19 and your successful graduation is a testament to your resilience and the extraordinary efforts of the BITS faculty and staff. I'm sure that it makes you happy that you have an in-person graduation. It is a sign of a return to normality.

Coming to our Pilani campus brings back memories of the day in August 1984 when I came in here as an undergraduate student of Mechanical Engineering. I met some people then — my wingees — extraordinary individuals who have enriched my life and had a big part in making me the person I am. They remain my closest friends — and three of them have accompanied me here today. The four years spent sharing experiences with this group of curious, engaged, broadly read, and fundamentally decent young individuals have shaped and guided me in my life. Thank you BITS for this amazing gift. Thank you also for creating a context in which such friendships could be forged.

Our campus has changed since the time I was here — there are new buildings, new facilities, and Nagar Redi is a lot larger and with more choices than we had. However, I am happy that what made Pilani special remains. The many generations of BITS students that I have had the pleasure of meeting in my career as an academic demonstrate a capacity for growth and the ability to make the best of their capabilities and circumstances. They are also humble and can laugh at themselves. And they have deep bonds with their wingees and with our institute. This is the BITSIAN spirit. And it is alive and kicking no matter the physical changes on campus.

It is customary to give a few pieces of advice in such ceremonies. I'll stick to this custom. But promise to keep it short.

- Go out and do great things. Take risks. Make mistakes. Learn. Research tells us that we tend to regret not doing things more than we regret our failures. So take chances and if you fail, pick yourself up and take chances again.
- Give freely. I read a paper recently, which showed that the warm glow that we feel from giving is one exception to the rule that the more we experience good things, the less happiness they provide. For example, the happiness we feel from eating the same food, from earning the same income, and from many other experiences quickly decreases with repeated exposure. In contrast, happiness from giving sustains itself. So, be generous in your interactions.

- Third, understand your privilege. You are among the very fortunate to have graduated from this great institution. This means you have a duty towards people who are less fortunate. The World Economic Forum estimates that of the 13 million people who join India's workforce each year, only one in five engineers, and one in 10 graduates are employable. What can you do to help? When making decisions about who to employ and how you evaluate people, know that their current capability is in large part down to luck. Don't get caught up in debates about merit when interacting with those who have not had the great education or experiences you have had. Instead, be kind and see how you can contribute to their growth and progress.

As an alumnus of this institution, I want to add something more. You are a BITSian for the rest of your life, and today you are going to be part of a large community of the alumni of BITS Pilani. As a proud alumnus, I welcome all of you to this wonderful community. I am sure that all of you will give back to the society for making you what you are today. I will urge you to also give back to your alma mater and to be engaged with the BITS family.

To those of you who are the toppers of your batch - congratulations! I wouldn't know what it would have taken for you to do so well in your studies here. I didn't. To my fellow six pointers in this batch, I will say, there is a big world out there with enough space for us to thrive. BITS Pilani opened an entirely new world for me. I hope that it does for you as well. I wish all of you great success in your journey forward !

Oath

“On this solemn occasion, Convocation 2022 at Pilani,
and in the presence of my teachers and family,
I pledge to use my knowledge and experience gained
at BITS Pilani and elsewhere in the service of the people
of my country and of the world. I will do so
while adhering to the highest ethical standards,
in harmony with the environment, and
with utmost humility, honesty and devotion,
and thereby bring glory to my family,
my Alma mater, my profession, and my country.”





Convocation 2019 Gallery



BITS Pilani

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