Dear Colleagues,

Heartiest welcome to another chapter of the Intensive Teaching Workshop (ITW), a program conceived and designed to help you excel in teaching. As you would have heard by now that BITS Pilani is a concomitant research and teaching institute. Its legacy in teaching will always be our guiding light while we explore niche directions in pedagogy, in Edu-Tech and continue to bring frontiers of research findings into the classroom.

It won’t be a hyperbole to say that the success of BITSians in every sphere of life-academia, corporate, entrepreneurship, civil services, social arena, literature and performing arts, research, defense services, and several others - is the success of our teaching pedagogy. In challenging times like these, when teaching had to embrace the virtual delivery mode, we must revisit our teaching-learning processes.

BITS Pilani has always adapted to the changing environments and adopted the appropriate and contemporary pedagogy from time to time. This would not have been possible without the wisdom and dedication of the faculty of the institute. The Teaching-Learning Center of BITS Pilani through the Intensive Training Workshop presents a treasured platform to draw attention to its teaching-learning culture and ecosystem. ITW also provides an opportunity and a podium for the faculty members to reflect on and discuss their teaching/learning experiences. I hope this workshop leaves all of you with a renewed spirit and passion to embark further on your journey toward becoming an excellent mentor in the classroom, be the role model for the students for the rest of their lives, and influence the path they will be on throughout their career. As Henry Brooks Adams famously said, a teacher affects eternity; she/he can never tell where her/his influence stops.

Wish you all the very best.

PROF. SOUVIK BHATTACHARYA
VICE CHANCELLOR
BITS PILANI
DIRECTOR’S MESSAGE

Dear Faculty Participants,

The delicate balance of mentoring someone is not creating them in your own image but giving them the opportunity to create themselves.

~ Steven Spielberg

As Teaching Learning Centre (TLC) BITS Pilani, Pilani campus is about to embark on yet another exciting voyage, it gives me immense pleasure in welcoming you to another chapter of the Intensive Teaching Workshop (ITW) here at BITS.

The vibrant and diversified education system at BITS has been one of its major highlights among several other unique features. Ceaselessly evolving, BITS Pilani has always improvised its curriculum and pedagogy to stay relevant leading innovations in the field of education. Today, our university provides excellent Digital infrastructure for teaching – Telepresence classrooms for cross-campus teaching, MOOC Courses, digitization of teaching contents, digital library, etc. which are focused on maximizing the learning outcomes. These experiences have been instrumental in helping our faculty and students to adapt quickly to the new normal during the current pandemic situation.

You will gain valuable insights into the education culture at BITS during this well-crafted workshop. This interactive experience will help you revamp your pedagogical practices and design teaching materials suited to the diversified curriculum that also subsumes in it the judicious interplay between industrial needs and their academic orientation. Having said that, the workshop would be an ideal platform for all the new members of our academic fraternity to bring in with them fresh waves of academic energy and enrich the constantly developing the robust academic culture at BITS, Pilani.

Good Luck!

PROF. SUDHIRKUMAR BARAI
DIRECTOR
BITS PILANI, PILANI CAMPUS
Dear Colleagues

Greetings!

I am pleased to welcome you to the Intensive Teaching Workshop (ITW) 2022. ITW is one of the teaching workshops that is consistently and continuously conducted for more than five decades at BITS Pilani. It is also one of the core events of the Teaching Learning Centre (TLC). The motive behind the workshop is to empower the faculty and researchers to equip the students to strive in an academically challenged and actively engaging setting. TLC aims to create a platform for an evolved teaching, learning, evaluation, and assessment experience. TLC works hard to accelerate teaching-learning process by way of promoting independent, critical and creative thinking. ITW intends to hand hold the teaching community in facilitating pedagogical research and innovation. The workshop is designed to enable the development of skills engaging latest technological devices as aids to teaching-learning process and to help faculty in capacity building for curriculum designing and scientific assessment and evaluation. The hand holding programs, the capacity building, the implementation of new pedagogical tools, engaging and developing students to get ready for 21st century challenges through various skill development are the objectives that are aligned with New Education Policy (NEP) 2020, of TLC BITS Pilani. Keeping the continuous improvement in view, this time ITW offers a new feature, “PRASHIKSHAN”, which is an interactive online self-paced learning platform containing the developed instructional content which can be taken up by individual faculty in a self-paced and self-learning mode. This is incorporated to supplement ITW Phase-I that can be implemented and adapted for a range of in-person, online, and hybrid learning environments. The hand holding program, “Intensive Teaching Workshop (ITW)” hosts the hands-on training on ‘Teaching Profession – Personal Perspectives’, ‘Domains of Learning and Instructional Objectives’, ‘Academic Regulations of BITS Pilani and its implementation in Teaching, Assessment and Grading’, ‘Flipped mode of Lecture Delivery: Opportunities and Challenges’, ‘Technology-Enabled Teaching and Learning’, ‘Assessment and Evaluation’ and ‘Better Student Engagement for Enhancing Teaching-Learning Effectiveness’. TLC is also working hard on developing the preconditions needed to improve motivation of faculty for effective/better teaching. Keeping the motivation aligned with ITW, I wish you good luck.

SHIBHANI KHANRA JHA
FACULTY IN-CHARGE, TLC
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The Teaching-Learning Centre is envisioned as an entity that fosters the teaching-learning experience. To create and uphold excellence in teaching at BITS Pilani, a Teaching Learning Centre is established across the institute, on all four campuses. The Teaching-Learning Centre promotes sharing of the teaching-learning experience, encourages innovation in teaching-learning methodologies, and creates a platform for learning from the best practitioners and from each other. It also conducts pedagogical research and actively seeks strategies/interventions in specific target contexts. TLC organizes workshops to train academicians in the use of the latest technology and various approaches and techniques for effective teaching and learning. It also creates a platform to address the various pedagogical challenges by conducting national/international conferences, lecture series, workshops, and training programs for academicians and scholars. It also provides opportunities to students to incubate new startup ventures by providing them funds for astonishing and feasible ideas in teaching and educational methodology. The details of the Teaching Learning Centre can be obtained from https://www.bits-pilani.ac.in/tlc/Pilani/index.html

ORGANIZING COMMITTEE

ITW COORDINATORS

Dr. Gautam Singhvi (Department of Pharmacy)
Email: gautam.singhvi@pilani.bits-pilani.ac.in

Dr. Gautam Singhvi is an Assistant Professor in the Department of Pharmacy, BITS, Pilani. He has been involved in teaching and research related to pharmaceutical product development for the last 12 years. He has published more than 85 international papers, 15 book chapters, and filed 6 patents. He is actively involved in practicing the newer teaching pedagogy in his classroom teaching and motivating students to face the challenges of the new era.

Dr. Meetha.V.Shenoy (Department of Electrical & Electronics Engineering)
Email: meetha.shenoy@pilani.bits-pilani.ac.in

Dr. Meetha V Shenoy is an Assistant Professor in the Department of Electrical & Electronics Engineering at BITS Pilani. She has been a lead instructor and also a member of the content development team of the MOOC and flipped classroom courses delivered through the various online content delivery platform. Her specialization is in the area of Deeply Embedded Systems. Her current research work covers the design of Optimal Embedded Hardware, Software, and network architectures for Autonomous Systems, Robotic Systems, and IoT Networks. She is also passionate about exploring various aspects of pedagogical research to find effective teaching/learning practices.
Dr. Ashutosh Bhatia (Department of Computer Science & Information Systems)

Email: ashutosh.bhatia@pilani.bits-pilani.ac.in

Dr. Ashutosh Bhatia received his B.E. degree in Computer Science from Barkatullah University, Bhopal, India, in 2000. From 2001-2005 he worked as a scientist in Defence Research and Development Organization (DRDO), India. He received his M.E. degree in Computer Science from the Indian Institute of Science (IISc), Bangalore, India, in 2007. From 2007-2010, he worked as a research engineer in Samsung India Software Operations (SISO). His research interests include building new designs, protocols, algorithms, and theories that improve the security, performance, and robustness of various networks and systems.

Dr. Krishna C. Etika (Department of Chemical Engineering)

Email: etika.krishna@pilani.bits-pilani.ac.in

Dr. Krishna C. Etika has been an Assistant Professor at the Department of Chemical Engineering, BITS Pilani, Pilani Campus, since March 2018. He carried out his doctoral research at Texas A&M University, College Station, TX, U.S.A. After Ph.D., Dr. Etika worked for Intel Corporation in U.S.A as a Technology Development Process Engineer from Jan 2011 to May 2014. Dr. Etika has worked in IIT Madras as an Institute Post Doctoral Fellow for the period Nov 2014–Aug 2015.

Dr. Muhammed Afzal P (Department of Humanities & Social Sciences)

Email: muhammed.p@pilani.bits-pilani.ac.in

Dr. Muhammed Afzal P. has been an Assistant Professor at the Department of Humanities and Social Sciences, BITS Pilani, Pilani Campus, since 2019. He carried out his doctoral research in Cultural Studies at the Department of Cultural Studies, The English and Foreign Languages University, Hyderabad. His areas of interest are Cultural Studies, Film Studies, Literary and Cultural Theory, Marxism, and Language Politics.

Dr. Nirankush Dutta (Department of Management)

Email: nirankush.dutta@pilani.bits-pilani.ac.in

Dr. Nirankush Dutta has been an Assistant Professor in the Department of Management, since 2017. Prior to joining BITS Pilani, he had worked in the IT industry in India and abroad for four years, and in academia for two years, where he taught Management courses to students of the post-graduate level. His primary research interest lies in Online Social Media Marketing and e-Commerce. In his Doctoral thesis, he has focused on building an empirically validated model on the role of trust in Online Social Media Marketing. He believes in interactive teaching with contemporary real-world examples in a friendly atmosphere. He prefers to inspire students to learn more on their own by raising their level of inquisitiveness and hand-hold them at the time of need.
Prof. Prashant Uday Manohar (Department of Chemistry)  
**Email:** pumanohar@pilani.bits-pilani.ac.in

Prof. Prashant Uday Manohar has been an Associate Professor at the Department of Chemistry, BITS Pilani, Pilani Campus, since August 2009. He carried out his doctoral research in Chemistry at National Chemical Laboratory (July 2001-July 2007) under the supervision of Dr. Sourav Pal and obtained his Ph.D. degree (University of Pune) in 2007. He was a Postdoctoral Research Associate at the Department of Chemistry, University of Southern California, Los Angeles, CA (USA) in Prof. Anna I. Krylov’s research group from October 2007 to June 2009. Dr. Manohar is a Theoretical and computational chemist.

Dr. Virendra Singh Shekhawat (Department of Computer Science & Information Systems)  
**Email:** vsshekhawat@pilani.bits-pilani.ac.in

Dr. Shekhawat is an Assistant Professor in the Department of Computer Science and Information Systems at Birla Institute of Technology and Science, Pilani, Pilani, India. He is also Faculty In-charge of Software Development & Educational Technology. He did his Ph.D. in Computer Science and Engineering from BITS Pilani. He has played a key role in several initiatives taken for Educational Technology at BITS Pilani. His broad research interests lie in the areas of Computer Networking, Distributed Systems, and Robotics. Currently, he is researching the area of Delay Tolerant Networks (DTN), Multi-robot Coordination Systems (MRS), and Software Defined Networks (SDN).

**TLC MENTORS**

Prof. Kaushar Vaidya (Department of Physics)  
**Email:** kaushar@pilani.bits-pilani.ac.in

Prof. Kaushar Vaidya has been an Associate Professor at the Department of Physics and is currently a TLC Advisor. She has been Faculty In-Charge TLC during 2018-20. Her research interests are in Astronomy and Astrophysics, primarily in the field of star formation. She has been Faculty In-Charge, Astro-club (since 2014), and Mentor of the Team Anant (since 2019). Dr. Kaushar is a passionate teacher and has been an active member of the Academic Counselling Cell (2014-18).

Prof. Surekha Bhanot (Department of Electrical & Electronics Engineering)  
**Email:** surekha@pilani.bits-pilani.ac.in

Prof. Surekha Bhanot is a Professor in the Department of Electrical and Electronics Engineering. She has been serving the institute for over four decades. She is the senior-most advisor of TLC and is very helpful in nature. She is an accomplished teacher, good counsellor and through her student engagement, nurtures the adaptability and capacity of the students for lifelong learning, in addition to curricular learning. Her areas of interest are Instrumentation System Design, Biomedical Instrumentation, and Artificial Intelligence Applications in Soft Sensing, Process Modelling, and Control.
Prof. Tapomoy Guha Sarkar (Department of Physics) Email: tapomoy@pilani.bits-pilani.ac.in

Prof. Tapomoy Guha Sarkar is an Associate Professor in the Department of Physics. His research interest lies in theoretical cosmology and he is specialised in the study of the diffuse intergalactic medium through the Lyman alpha forest spectra and redshifted 21-cm signal. He has taught a variety of courses including Mechanics Oscillators and Waves, Quantum Mechanics, Statistical Mechanics, Astrophysics, Thermodynamics, etc.

Dr. Tamali Bhattacharya, Email: tamali@pilani.bits-pilani.ac.in

Dr. Tamali Bhattacharyya has a Masters in Economics from Calcutta University and a PhD from the School of Education Technology, Jadavpur University on the Impact of educational software on learning outcome in secondary school children. Currently, she is a Research Consultant with the TLC, BITS Pilani, Pilani Campus. She has been a Research Project Manager in several Education Technology-based projects at IIT Kharagpur, and has several journal and conference publications to her credit including a few IEEE publications. She was a faculty member in Economics at Savitri Girls College in Kolkata and Hijli College in Kharagpur. Her research interests include education technology, instructional design, pedagogy, rural and tribal child education, and social economics. She developed a multi-modal computer-aided learning tool Khelapara for primary school children. She is a co-founder of an NGO, ASMA (Association for Supporting Marginalised Aspirations) based in West Bengal.

Prof. Ajit Pratap Singh (Department of Civil Engineering) Email: aps@pilani.bits-pilani.ac.in

Prof. Ajit Pratap Singh is a Professor in the Department of Civil Engineering and is presently, the Dean, Academic-Undergraduate Studies Division (institute-wide). Prof. Ajit Pratap Singh received Civil Engineering degrees from BITS Pilani and is a Fellow of the Institution of Engineers (India) and Fellow of Indian Association of Hydrologists (FIAH). He has also served as Professor and HoD, Civil Engineering at the Dubai Campus, and is a member of various boards/committees at various universities.

Prof. Aniruddha Roy (Department of Pharmacy) Email: aniruddha.roy@pilani.bits-pilani.ac.in

Prof. Aniruddha Roy is an Associate Professor at the Department of Pharmacy and an accomplished scientist in the field of nanotherapeutics. As a lead researcher, he is also the inventor of 2 patented platform technologies for targeted tumor therapy, of which one has been taken up by FACIT, Canada. His main area of research interest include nanomedicine, combination therapeutics, and multifunctional nanoparticles.
Prof. Rishikesh Vaidhya (Department of Physics) Email: rishikesh@bits-pilani.ac.in

Prof. Rishikesh Vaidhya is a Professor in the Department of Physics, Birla Institute of Technology and Science Pilani, Pilani campus. He did his Ph.D. at Physical Research Laboratory (PRL), Ahmedabad. He was a Post Doctoral Fellow at PRL, National Central University, Taiwan, and the Tata Institute of Fundamental Research, Mumbai. His research interests are in the areas of theoretical particle physics, involving the Physics of neutrinos, Supersymmetry, Baryogenesis, and Favor Physics.

Prof. Shamsher Bahadur Singh (Department of Civil Engineering) Email: sbsinghbits@gmail.com

Prof. Shamsher Bahadur Singh is a Senior Professor in the Department of Civil Engineering and P.E. (Civil) from the state of Michigan, USA, and a Post-doctorate (LTU), USA, Fellow of American Society of Civil Engineers (FASCE), Chartered Engineer (INDIA), a fellow of Institution of Engineers (FIE), he has done his Ph.D. from IIT Kanpur. Prof. Singh is also a member of ICI, ACI, FASCE, and ISTE in addition to being an Associate Member of the ACI-440 committee on FRP as a member of ACI.
PROJECT “PRASHIKSHAN”

BITS Pilani organizes ITW for newly inducted faculty members. We observed that the current approach to conducting ITW has certain limitations, and therefore, we are not able to achieve its objectives completely. Some of the limitations are:

● Limited coverage of topics because of time constraints
● No provision to revise or re-visit the presentations made.
● No mechanism to measure the learning outcome of the workshop.
● No mechanism to learn by doing.
● Scheduling of ITW in between the semester
● No archiving of previous ITW’s.
● Faculty members join throughout the year and sometimes do not get an immediate opportunity to learn effective teaching practices.

We believe that reflection, evaluation, and assessment are integral to the teaching process and therefore build them into our resources. In this project, we propose to create a technology-enabled self-learning framework for ITW faculty members where the newly joined faculty members can get their training from the framework “PRASHIKSHAN” where they can learn different pedagogical methods, Instructional Objectives, and Assessment, and Evaluation techniques. In particular, an online Self-Paced Learning Platform will be developed for the Intensive training Workshop, which will solve the above-mentioned issues to a great extent.

Objectives

1. To design and implement a self-paced self-learning instructional content for new faculty to supplement ITW Phase-I that can be implemented and adapted for a range of in-person, online, and hybrid learning environments.
2. To design and develop an interactive online self-paced learning platform (Prashikshan) containing the developed instructional content which can be taken up by individual faculties in a self-paced and self-learning mode.
3. To design and develop online self-assessment modules, and integrate the with Prashikshan platform.
4. To develop a system for archiving and integrate it with Prashikshan platform.

For further information, please refer to the following website: https://prashikshan.herokuapp.com/home

Project Investigators:

Dr. Ashutosh Bhatia, Dr. Vishal Gupta, and Dr. Tamali Bhattacharyya

Developer: Ankit Agarwal, Pratham Neeraj Gupta
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<td><strong>Learner Perspective</strong></td>
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<td>Student Engagement</td>
<td>Prof Hari Nair</td>
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<td>Learning Styles</td>
<td>Dr. Meetha.V.Shenoy</td>
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<td>Communicating with students</td>
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<td>Dr. Vishal Gupta</td>
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<td>Dr.Tamali Bhattacharyya</td>
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<td>Evaluation in inquiry based teaching-learning</td>
<td>Prof. Tapomoy Guha Sarkar</td>
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<td>Active Learning</td>
<td>Prof. Kaushar Vaidya</td>
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<td>Art of Presentation: Blackboard, PowerPoint, and Pedagogy</td>
<td>Prof. Rishikesh Vaidya</td>
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<td>Experiential Learning</td>
<td>Prof. Navneet Gupta</td>
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<td>Team Based Learning</td>
<td>Dr. Nirankush Dutta</td>
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<td>Prof. Rajeev Shakuja</td>
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<td>Attributes of a good teacher</td>
<td>Dr. Madhurima Shakhuja</td>
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<td>Dr. Vishal Gupta</td>
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<td>Storytelling Pedagogy for Teaching</td>
<td>Prof. Sailaja Nandigama</td>
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<td>Game Based Pedagogy</td>
<td>Prof. Manoj Soni</td>
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<td>Prof. Tapomoy Guha Sarkar and Prof. Aniruddha Roy</td>
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<td>Methods of Assessment and Evaluation</td>
<td>Prof. Shibani Jha</td>
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<td>Dr. Krishna Etika</td>
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<td>Game based Assessment</td>
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<td>Art of Designing a good question paper</td>
<td>Prof. Pankaj Sharma</td>
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<td>Design a Course</td>
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<td>Designing a Course Handout 1</td>
<td>Prof. Anirudha Roy</td>
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<td>Designing a Course Handout 2</td>
<td>Prof. Pankaj Sharma</td>
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<td>Lab Sheets</td>
<td>Dr. Bibhas Ranjan Sarkar</td>
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<td>Dr. Jagat Sesh Challa</td>
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<td>Dr. Jayashree Mahesh</td>
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<td>Best Practices : Teaching with PPT</td>
<td>Prof. Krishnendra Shekhawat</td>
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<td>Best Practices: Online Teaching</td>
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<td>BITS LMS -Nalanda</td>
<td>Dr. Virendra Shekhawat</td>
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<td>ERP</td>
<td>Dr. Hari Babu</td>
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</table>
(i) ‘Prashikshan’ Demo Session
Date: 12th April 2022 (Tuesday)
Venue: TLC room 1224 (FD1)
Time: 5:15 pm.

(ii) The ITW Part-I has been scheduled to run on Saturday, April 23, 2022, in the NAB Auditorium (Room # 6110).

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<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Resource Person(s)</th>
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<tbody>
<tr>
<td>08:30-09:00</td>
<td>Breakfast and Registration</td>
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<tr>
<td>09:00-09:10</td>
<td>Orientation by Faculty in Charge</td>
<td>Prof. Shibani K Jha</td>
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<td>09:10-09:20</td>
<td>Vice Chancellor’s address</td>
<td>Prof. Souvik. Bhattacharya</td>
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<tr>
<td>09:20-09:30</td>
<td>Director’s address</td>
<td>Prof. Sudhirkumar Barai</td>
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<tr>
<td>09:30-10:00</td>
<td>‘Prashikshan’ Inauguration</td>
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<td>10:00-10:30</td>
<td>Tea</td>
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<tr>
<td>10:30-11:00</td>
<td>Interaction and Q &amp; A session: Academic Regulations of BITS Pilani and its implementation in Teaching, Assessment, and Grading</td>
<td>Prof. Ajit Pratap Singh</td>
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<tr>
<td>11:00-12:50</td>
<td>Workshop on ‘Handout Instructions, Assessment/Evaluation and Grading’</td>
<td>Dr. Tamali Bhattacharya, Prof. Shibani K Jha, Dr. Krishna Etika</td>
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<td>12:50-14:00</td>
<td>Lunch</td>
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<td>14:00-15:00</td>
<td>Workshop on ‘Technology-Enabled Teaching and Learning (Nalanda and ERP)’</td>
<td>Dr. Ashutosh Bhatia, Dr. Virendra S. Shekhawat</td>
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<tr>
<td>15:00-16:00</td>
<td>Supporting Students and Ethical Practices</td>
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<td>16:00-16:15</td>
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<td>16:15-16:55</td>
<td>Participant’s Reflection</td>
<td>Open Session</td>
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<td>16:55-17:00</td>
<td>Vote of Thanks</td>
<td>Dr. Gautam Singhvi</td>
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</table>
ITW Part-II will be conducted on 30th April 2022. The participants have been randomly distributed into three groups. Each group will have three resource persons from which one is a non-TLC member. Each participant will demonstrate his/her teaching skills by presenting a short lecture of 20 minutes on the topic of their own choice. The participants are advised to make balanced use of blackboard, slides, etc. The resource persons will make observations and share the same at the end of each presentation.

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<tr>
<th>Group 01</th>
<th>Participants</th>
<th>Resource Persons</th>
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<td>Room # 1224</td>
<td>Dr. Md Qaisar Raza</td>
<td>Prof. Aniruddha Roy</td>
</tr>
<tr>
<td>Time: 9:00 am-10:45 am</td>
<td>Dr. Rita Sharma</td>
<td>Dr. Meetha V. Shenoy</td>
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<td>Dr. Partha Sarathi Addy</td>
<td>Dr. Tamali Bhattacharyya</td>
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<td>Dr. Balakrushna Padhi</td>
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<td>Dr. Md Rushdie Ibne Islam</td>
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<td>Tea Break:</td>
<td>10:45 am-11:00 am</td>
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<th>Group 02</th>
<th>Participants</th>
<th>Resource Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room # 1224</td>
<td>Dr. Balakumaran Chandrasekar</td>
<td>Prof. Rishikesh Vaidhya</td>
</tr>
<tr>
<td>Time: 11:00 am-1:00 pm</td>
<td>Dr. Subhasis Pradhan</td>
<td>Prof. Shibani Khanra Jha</td>
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<td></td>
<td>Dr. Selva Balaji M</td>
<td>Dr. Krishna Etika</td>
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<td>Dr. Tejasvi Alladi</td>
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<td></td>
<td>Dr. Satyajit Patra</td>
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<tr>
<td>Lunch:</td>
<td>1:00 pm - 3:00 pm</td>
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<tr>
<th>Group 03</th>
<th>Participants</th>
<th>Resource Persons</th>
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<tbody>
<tr>
<td>Room # 1224</td>
<td>Dr. Debi Prasad Bal</td>
<td>Prof. Shamsher Bahadur Singh</td>
</tr>
<tr>
<td>Time: 3:00 pm-4:45 pm</td>
<td>Dr. Mohit Garg</td>
<td>Dr. Nirankush Dutta</td>
</tr>
<tr>
<td></td>
<td>Dr. Pritam Kumar Jana</td>
<td>Dr. Gautam Singhvi</td>
</tr>
<tr>
<td></td>
<td>Dr. Avik Kumar Pati</td>
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<td></td>
<td>Rahul Kumar</td>
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<tr>
<td></td>
<td>Dr. Asish Bera</td>
<td></td>
</tr>
</tbody>
</table>
PARTICIPANTS

Name: Dr. Asish Bera
PSRN: P3742
Department: Computer Science and Information Systems
Email: asish.bera@pilani.bits-pilani.ac.in
Research area: Dr. Asish Bera’s current area of research includes the domains of Artificial Intelligence, Computer Vision, and Image Processing. He is working on the following areas: Human activity recognition, Fine-grained visual recognition, Deep neural networks, Hand Biometric Authentication, and Image-based CAPTCHA design.

Name: Dr. Avik Kumar Pati
PSRN: P3732
Department: Chemistry
Email: avik.pati@pilani.bits-pilani.ac.in
Research Area: Dr. Avik Kumar Pati is a fluorescence spectroscopist by training. His current research interests are on understanding complex behaviours of fluorophores, rectifying their bad behaviours, and then applying them for fluorescence imaging.

Name: Dr. Balakrushna Padhi
PSRN: 3687
Department: Economics and Finance
Email id: balakrushna.padhi@pilani.bits-pilani.ac.in
Research Area: Dr. Balakrushna Padhi’s research interest includes: employment, informality and labour migration; and issues related to poverty, inequality and health and social sector budgeting. His teaching interest topics include Public finance, Principles of Economics, Microeconomics and Business environment.

Name, Dr. Balakumaran Chandrasekar
PSRN, 3690
Department: Biological Sciences
Email id: balakumaran.c@pilani.bits-pilani.ac.in
Research Area: Dr. Balakumaran Chandrasekar’s research interest is centered around glycans and glycobiology. From a biological perspective, we would like to unravel the roles of novel glycans (in microbes and plants) during plant-pathogen interactions. The mechanistic insights gained will be used for translational purposes for crop improvement such as generating disease-resistant crops.

Name: Dr. Debi Prasad Bal
PSRN:P3720
Department: Economics & Finance
Email: debiprasad.bal@pilani.bits-pilani.ac.in
Research Area: Computational Economics, Macroeconomics and Energy Economics
Intensive Teaching Workshop (ITW) 2022

Name: Dr. Md. Qaisar Raza
PSRN: 3679
Department: Mechanical Engineering
Email: qaisar.raza@pilani.bits-pilani.ac.in
Research area: Dr. Md. Qaisar Raza’s research area is primarily focused around the development of advanced thermal management strategies such as multiphase heat transfer for the cooling of high power density energy systems for earth and microgravity applications. He has also worked in the area of surface engineering and interfacial science.

Name: Dr. Md Rushdie Ibne Islam
PSRN: P3689
Department: Civil Engineering
Email: rushdie.islam@pilani.bits-pilani.ac.in
Research Areas: Dr. Md Rushdie Ibne Islam works in the broad area of computational mechanics and particle-based methods to solve problems involving large material deformation, material damage and failure. Currently, he is working on the development of reliable computational frameworks with GPU acceleration to analyse the strength and toughness of soft composites in order to gain new insights into their mechanical behaviour and design.

Name: Dr. Mohit Garg
PSRN: P3722
Department: Chemical Engineering
Email: mohit.garg@pilani.bits-pilani.ac.in
Research Area: Dr. Mohit Garg’s research area is based on understanding properties of nanomaterials and biomaterials for energy applications at molecular level using state-of-the-art Molecular Dynamics simulations. Other areas include nanoscale heat and mass transport and bio-chemical engineering.

Name: Dr. Partha Sarathi Addy
PSRN: P3681
Department: Chemistry
Email id: partha.sarathi@pilani.bits-pilani.ac.in
Research Areas: Current research focus of Dr. Partha Sarathi Addy group’s at BITS Pilani is to use Organic Chemistry to develop various stimuli responsive autonomous decision-making materials to be used in biology and material science.

Name: Dr. Pritam Kumar Jana
PSRN: P3723
Department: Chemistry
Email: pritam.jana@pilani.bits-pilani.ac.in
Research Area: Dr. Pritam Kumar Jana is a theoretical physical chemist. His research interest revolves around molecular and colloidal self-assembly, nanoscale friction, and rheology of complex fluids using theory based on statistical mechanics and computer simulations.

Name: Dr. Rahul Kumar
PSRN: P3735
Department: Mathematics
Email: kumar.rahul@pilani.bits-pilani.ac.in
Research Area: Dr. Rahul Kumar’s research area is Commutative Algebra. He is working on the set of intermediate rings of a commutative ring extension. He is also working on the generalization of an integral domain which is a well known concept in algebra.
Name: Prof. Rita Sharma  
PSRN: P3680  
Department: Biological Sciences  
Email: rita.sharma@pilani.bits-pilani.ac.in  
Research Area: Dr. Rita Sharma’s research aims at generating improved crops using data-driven precision agriculture. She is currently focusing on optimising sorghum transformation and editing. Although the major emphasis of her work is on engineering protein-coding genes, she is also investigating interspecific variation in coding and non-coding RNAs to elucidate functional signatures responsible for diversity in agronomic traits.

Name: Dr. Satyajit Patra  
PSRN: P3718  
Department: Chemistry  
Email: satyajit.patra@pilani.bits-pilani.ac.in  
Research Area: Dr. Satyajit Patra’s research interest is focused in the frontier areas of physical chemistry. He is particularly interested in using the metal nanostructures as optical antennas to breach the diffraction limit in single molecule fluorescence detection. His main aim is to utilise the advanced fluorescence microscopy tools to study the DNA-protein interactions which have applications towards potential anticancer and antiviral therapy.

Name: Dr. Selva Balaji M  
PSRN: P3714  
Department: Civil Engineering  
Email: selva.balaji@pilani.bits-pilani.ac.in  
Research Area: Dr. Selva Balaji M’s research area is Groundwater Hydrology. He is working on Groundwater Hydrology, Experimental Hydraulics, Contaminant Transport, and Coastal Aquifers with interest on saltwater intrusion.

Name: Subhasis Pradhan  
PSRN: P3699  
Department: Civil Engineering  
Email: subhasis.pradhan@pilani.bits-pilani.ac.in  
Research Area: Sustainable construction materials, Concrete technology, Cement chemistry, Geopolymer, Microstructural analysis, Reinforced concrete design, Life Cycle Assessment

Name: Dr. Tejasvi Alladi  
PSRN: P3717  
Department: Computer Science and Information Systems  
Email: tejasvi.alladi@pilani.bits-pilani.ac.in  
Research Area: Dr. Tejasvi Alladi works in the broad area of Internet of Things (IoT) with a special focus on securing the IoT networks and devices. Currently, He is working on securing IoT networks such as vehicular networks and drone networks using deep learning and cryptographic techniques.
Feedback Form (Phase-I)

1. The topics covered in ITW-1 (including Project PRASHIKSHAN) are relevant (Rate on a scale of 1-5, 1 being lowest, 5 being highest)

2. What did you like best about this ITW?

3. Any other aspect/topic you would have liked to have been included in ITW Phase-I (in face-to-face mode or via Project PRASHIKSHAN)?
4. **Outcome Evaluation:** This section helps us evaluate how effective the ITW was in providing participants with the desired content. Circle your answer.

1. Understanding about defining Instructional Objectives and learning outcomes in the Handout for a course:

   Before ITW: Poor Fair Good Excellent
   After ITW:Poor Fair Good Excellent

2. Your confidence in designing effective assessment components:

   Before ITW: Poor Fair Good Excellent
   After ITW: Poor Fair Good Excellent

3. Your confidence in enabling learner-centric Teaching?

   Before ITW: Poor Fair Good Excellent
   After ITW: Poor Fair Good Excellent

4. Understanding of BITS Academic Regulations

   Before ITW: Poor Fair Good Excellent
   After ITW: Poor Fair Good Excellent

5. Your confidence in participating in Technology Enabled Teaching

   Before ITW: Poor Fair Good Excellent
   After ITW: Poor Fair Good Excellent

6. What further training or support would help you to be a confident teacher?
Feedback Form (Phase-II)

1. Rate your level of agreement on a scale of 1 to 5 (with 1 being “highly disagree”, and 5 being “highly agree”) to each of the following:

   • The time allotted for each presentation was sufficient

   • I received adequate feedback about my presentations

   • The feedback given was useful for my improvement

   • I benefited immensely from observing the presentations of my other colleagues

2. On a scale of 1 to 5 (1 being “highly dissatisfactory”, and 5 being “highly satisfactory”), How would you rate your overall experience of this semester’s ITW?

3. Any suggestions you may have for strengthening the current format of ITW further?
RESOURCES

Following resources are made available by the ‘Prashikshan’ can be accessed by a faculty from the link given below:

https://prashikshan.herokuapp.com/home

Following resources are made available by the AUGS-AUGSD division which can be accessed by a faculty from the link given below.

https://academic.bits-pilani.ac.in/Faculty/faculty-dashboard.aspx

- Bulletin
- Academic Regulation
- Handout of Courses
- Instructions for Question paper production
- List of Text Books
- Pre-requisites of courses
- Semester Time Table

Following resources are made available by the TLC division which can be accessed by a faculty from the link given below

https://www.bits-pilani.ac.in/tlc/Pilani/Resources.html

- Guidelines to teachers
- Invited Talks
- List of Books (related to teaching/learning)

Following resources on online teaching are made available by the TLC division which can be accessed by a faculty from the link given below

https://www.bits-pilani.ac.in/tlc/Pilani/Online-Teaching.html

- Gluing Traditional and Online Teaching
- Student Engagement (Mentimeter) and Breakout Sessions
- Take-home assignments, and Online discussions using Slack
- Use of Tablets Introduction to jPlag and Mail-Merge
- Sharing Experience of Flipped-mode of Teaching
- Introducing Canvas - A Learning Management System
- Training on Online Assessment