GUJARAT TECHNOLOGICAL UNIVERSITY
(Established under Gujarat Act No. 20 of 2007)
ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી
(ગુજરાત અધિનિયમ ક્રમાંક: ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Ref.: GTU/GIC/DIC/Workshop/2019/202 **Date: 10/01/2019**

Circular

GTU – Design Innovation Centre *(A MHRD funded Scheme)*

Organizes

Workshop on Emerging Technologies: Artificial Intelligence, Machine Learning, Deep Learning

For all Streams of Engineering, Pharmacy and Management

(Since these emerging technologies are applicable to all industries & all streams)

In association with IIT – Kanpur

A Unique Learning opportunities for Essential skills and perspectives for surviving and prospering in the era of disruption and exponential growth.

Date: 7th – 8th February, 2019
Time: 9:00 am to 5:00 pm
Venue: B-0 hall, GTU Chandkheda campus

About the workshop:

Advances in data informed intelligent systems; additive manufacturing and other such disruptive (exponential) technologies are not only redefining the technological, business and social landscape but impacting culture, globally. We need to go back to first principle and fundamentally re-design complex systems that inform our way of life. This change can be intimidating for the fear of being left behind or out dated. Or, it can be, enormously empowering, to individuals and institutions, who are not only aware of these technologically mediated transformative changes but also essentially (re-) skilled to participate in this biggest and fastest era of sustainable global growth, volatility and prosperity ever experienced by mankind.

Institutions have to create capacities and develop new capabilities to survive and prosper. The new norm is to re-learn and re-structure; to harvest the creativity of technologically empowered & visually thinking and expressive human capital. Continuous updating of skills

available within the Human Resource (HR) of any organization is necessary for remaining competitive. Skills development require considerable time investment, which translates to significant HR development costs. Widely followed format in this regard is to collaborate with an academic institution of repute and conduct a customized up-gradation sessions for a group of employees. Such endeavors are usually known as Talent Development Program (synonymously known as Faculty Development program - FDP). However, usually such FDP initiatives focus mainly on exposing the workforce to latest know-how. Translation of knowledge to usable skills require specialized programs that are vastly different from typical FDP approaches. Skill development requires three major steps, in the following specific sequence.

1. **Know-how stage:** The simplest and easiest of the three steps, in which participants are exposed to chosen concepts. Most FDPs start and end at this stage itself, leaving the major portion of skill building to participants themselves. However, this stage is important to provide the exposure and background knowledge about those chosen concepts.
2. **Do-how stage:** This stage follows the know-how stage, where participants are trained on how to apply learned concepts to carefully chosen practical examples. The stage focuses on monitored hand-holding of participants so that application skills on the chosen concepts are developed. This stage is mostly industry specific and also heavily concept dependent. But, this is extremely necessary to ensure that participants develop proper skills when putting the know-how into practice.
3. **Show-how stage:** The final stage of the skill building process, where participants demonstrate their skills on carefully chosen industry relevant problems that are open-ended and requiring several modeling decisions/assumptions to apply the concept. This stage also serves as the evaluation phase of the skilling process. The major decisions to be made by the participants include, but not limited to, what are the decision questions, what data to use, what assumptions to make, where to look for data, how to develop an appropriate solution approach to the open ended problem, validate and verify the approach and results, interpret those results, and so on.

The major hurdle in this process is the non-availability of a platform that facilitates this approach and seamlessly integrate with expert face time. While there are many applications that do the job of Learning Management Systems (LMS), their applicability for skill-building FDPs is quite limited. This mandates the development of such a portal that is tailor-made for skill-building FDPs; targeted at the corporate audience. The major road block in this ambitious idea is the non-existence of any such portals. IITK has developed such a portal using open source applications, named as ExEd Portal (ExEdP), to address this technological deficit.

Profile of Experts:

Dr. Deepu Philip is a faculty in the IME Department of IITK. He is also a faculty of the Design Program and heads the smart systems and operations laboratory of IIT Kanpur. He is also the coordinator of the Visionary Leaders for Manufacturing (VLFM), the premier tri-institute (IIMC, IITK, IITM) degree awarding program in India. His research is primarily focused on security (national, food, and energy), Manufacturing systems, Entrepreneurship, Systems Simulation, Unmanned Aerial Systems and Systems Engineering. His bachelor's degree is in Industrial Engineering with his doctorate in Industrial & Management Engineering from MSU Bozeman. He has experience in designing and implementing complex system of systems in different fields.

Dr. Ashutosh Khanna is a faculty of Strategy at International Management Institute, New Delhi where he is also the head for Strategy & General Management and Chairman of the Center for Disruptive Innovation & Enterprise [CDIE]. His work and research areas include: Innovation Audit; Entrepreneurship [Corporate & Start-up]; Networks – Hierarchies – Hybrids; Activity & Value Systems; Intangible Assets & IPR; Corporate Strategy & Growth; Business Modeling; Indian PSUs, Indian MSME and Business Systems [India UnInc.]. He has an MSc & PhD from the London School of Economics & Political Science, U.K. He is currently working on developing platforms of collaborations for enhancing strategic productivity across Indian business systems using innovations in physical and social technologies.

Registration and Payment details:

1. **Registration fees** - Rs. 200 (Including GST, Breakfast-tea, Lunch and Registration kit)
2. To proceed for registration, first you need to submit online payment of registration fees.
3. You will get unique payment reference number while making online payment, please note this number which will be asked during online registration.
4. To make Payment and for step by step payment guidelines, please go to: https://www.gtu.ac.in/Payment
    a. Select "**REGISTRATION FEES FOR CONFERENCE"** in Payment category.
    b. Enter **"Workshop on Emerging Technologies"** in conference name.
    c. Fill in all necessary details and submit. Print or save challan/receipt which is having ref. no. starting with DU……
5. Registration link: **https://goo.gl/forms/Swy6AyiPlTdqimgr1**
6. You have to enter payment reference number and upload your challan/receipt during registration and then complete the registration process.
7. Participation Certificate will be issued upon attending entire workshop only.

8. Bring your college ID (for students)/work place ID (for faculty members/professionals) during workshop.
9. Also carry your laptop during the workshop.

About Design Innovation Centre (DIC)

A NATIONAL INITIATIVE FOR SETTING UP OF DESIGN INNOVATION CENTRES, OPEN DESIGN SCHOOL & NATIONAL DESIGN INNOVATION NETWORK.

Design-centred innovation is a force multiplier that can help the country move up the value chain, making Indian industry globally competitive. In this context, Ministry of Human Resource Development proposes to launch a National Initiative for Design Innovation in the Twelfth Plan. Under this initiative, 20 new Design Innovation Centres (DIC), one Open Design School (ODS) and a National Design Innovation Network (NDIN), linking together all these schools, would be set up. ODS would ensure maximum reach of design education and practice in the country through various collaborative education programmes (linking a broad spectrum of educational institutions), and free sharing of its courseware through the Internet. NDIN would be a network of design schools that work closely with other leading institutions of industry and academia, NGOs and government to further the reach and access of design education, to pro-mote design innovation in all sectors, and to develop wide-ranging collaborative projects between institutions. ODS and NDIN would also raise the standards of design education and innovation in the country through various initiatives including the creation of fabrication labs and digital media zones across educational institutions on a large scale.

Gujarat Technological University, is a biggest state technological university, established under Gujarat Act no. 20 of 2007, commonly referred as GTU, is continuously striving for shaping a better future for its students by putting astonishing efforts to make its education system excellent enough so that students and ultimately whole society would benefit. In the light of above facts, GTU has been continuously developing an ecosystem in Design & Innovation, Entrepreneurship and Technological advancement in Gujarat state.

GTU has been awarded the grant by MHRD to establish Design Innovation Centre to support innovative projects of students under this scheme at University Premise as Hub and other 3 institutes as spokes (AVPTI College Rajkot- Spoke 1, Dr. S. & S. S. Ghandhy College of Engineering & Technology – Spoke 2 and GEC Modasa – Spoke 3) to cover entire state.

The basic purpose of setting up Design Innovation Centres is to promote, nurture and advance the culture of design, innovation, creative problem solving and entrepreneurship among

young minds in the country leading to significant contributions and breakthroughs impacting quality of human life; to promote knowledge sharing and collaboration amongst industry, academia, Government Institutions, research laboratories, etc.; to serve as a location for the industrial collaborators to encourage their new Product Development in the campus using in-house facilities; to serve as a place that imparts design based education and practice systematic design through interdisciplinary design-focused projects; to create an ecosystem facilitating students and faculty to take their innovative ideas from classrooms/labs to market/people.

GTU - DIC would support in product design and development, prototype building through full-fledged FabLab, mentorship and networking, IPR support, training and workshop, skill developments, fellowship and awards to best projects/solutions, co-working space etc.

For any query related to above workshop, please contact:

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Sd/-
Registrar (I/c), GTU