Motilal Nehru National Institute of Technology Allahabad, Prayagraj

GIAN course on "Generative AI for Digital Transformation"
December 30, 2024, to January 10, 2025 (Two Weeks)

Overview

Generative AI for Digital Transformation is an intensive and timely two-week program, crafted meticulously to delve into the depths of Generative AI technologies. It targets their implications and practical applications across various organizational contexts. The course amplifies theoretical learning with hands-on, action learning activities and assignments that emphasize real-world application. This program should serve a broad audience, ranging from senior leaders and technology heads to managers and professionals across diverse domains such as innovation, sales, product management, marketing, and customer experience.

The course encourages participation across sectors, providing immense value for those aiming to harness Generative AI to streamline workflows, drive product innovation, enhance customer experience, and comprehend investment potential.

Course Objectives

The primary objectives of the course are as follows:
i.   Exposing participants to the Generative AI systems: Differences and relationships with Deep Learning.
ii. Introducing the concept of Large Language Models and further discussion about structures and algorithms to implement efficient architectures.
iii. Discuss social, economic and political implications, the risks and benefits to society and businesses.
iv. A brief review of Regulatory and Governance aspects and familiarizing the participants about various efforts around international laws and regulations for responsible AI.
v.   Enhancing the capability of the participants to identify and evaluate some of the key technologies and recommendations for India to become a world leader in this area.

Learning Objectives

After completing this course, the audience/recipients should:
i.   Understand generative AI deeply, including its historical development.
ii.   Discover how diverse domains like art, biology, healthcare, and learning apply Generative AI.
iii. Comprehend and implement prompt engineering to enhance productivity.
iv.   Learn strategies for automating organizational workflows using Generative AI.
v.   Understand the dynamics of reinforcement learning and the power of data search in Generative AI.
vi.   Navigate the ethical, compliance, and risk aspects associated with Generative AI.
vii. Understand potential digital transformation opportunities enabled by generative AI for your organization.
viii. Understand what it will take – from both technology and culture - to make AI work in your organization.

Programme Schedule

Dates:	December 30, 2024 - January 10, 2025		
Location:	Executive Development Centre, MNNIT Allahabad		
Course Schedule:	30th Dec 2024	Lecture-1: 2 hrs:	Introduction to Generative AI
		Lecture-2: 2 hrs:	Application of Artificial Intelligence
	31st Dec 2024	Lecture-3: 3 hrs:	Generative AI systems: Differences and relationships with Deep Learning.
		Lecture-4: 1 hr:	Case Study (Day 1) on Artificial Intelligence
	1st Jan 2025	Lecture-5: 3 hrs:	Concept of Large Language Models
		Lecture-6: 1 hr:	Case Study (Day 2) on Artificial Intelligence
	2nd Jan 2025	Lecture-7: 3 hrs:	Structures and Algorithms of Generative AI
		Lecture-8: 1 hr:	Tutorial on Artificial Intelligence (Day 1)

	3rd Jan 2025	Lecture-9: 3 hrs:	Generative AI and algorithms to implement efficient architectures.
		Lecture-10: 1 hr:	Tutorial on Artificial Intelligence (Day 2)
	6th Jan 2025	Lecture-11: 3 hrs:	Generative AI's Social, economic and political implications
		Lecture-12: 1 hr:	Case Study (Day 3) on Artificial Intelligence
	7th Jan 2025	Lecture-13: 3 hrs:	Generative AI's associated Risks and Benefits to society and businesses
		Lecture-14: 1 hr:	Tutorial on Artificial Intelligence (Day 3)
	8th Jan 2025	Lecture-15: 3 hrs:	Regulatory and Governance aspects and international laws and regulations for responsible AI
		Lecture-16: 1 hr:	Case Study (Day 4) on Artificial Intelligence
	9th Jan 2025	Lecture-17: 3 hrs:	Key technologies of generative AI
		Lecture-18: 1 hr:	Tutorial on Artificial Intelligence (Day 4)
	10th Jan 2025	Lecture-19: 2 hrs:	How to make AI work in your organization.
		Lecture-20: 2 hrs:	Application of Artificial Intelligence in Education
Who can attend?	• Professionals from both private and public sectors interested in learning about and promoting Generative AI for Digital Transformation • Faculty and researchers from various institutions and universities • Student at all levels (BCom/BTech/MBA/MCom/MSc/MTech/PhD)		
Course Fee:	The participation fees for attending the course is as follows: Participants from abroad: US$ 100 + 18% GST Industry/ Research Organizations: Rs. 3000 + 18% GST Academic Institutions (Faculty members): Rs. 2000 + 18% GST Academic Institutions (Students/Research scholars): Rs. 1000 + 18% GST The above fee includes all instructional materials Minimum 90% attendance necessary to be eligible for certificate Appearing for evaluations/examinations during the course is necessary for certificate of grades in the course.		
Bank Account Details:	The Course Participation fee is required to be deposited in the bank account mentioned below through online transfer or bank deposit; the account detail is as under: Account Name: SNFCE MNNIT Allahabad Account No.: 10424975574 Bank Name: State Bank of India, Branch: MNNIT Allahabad U.P. India IFSC Code: SBIN0002580		
Registration	The applicant may register using the following link and filling up all the required details and uploading document required. The seats are limited and would be offered on the first come first basic. https://forms.gle/wRsvPuDPCQg9QK3J8 Last Date of Registration: December 15, 2024		

International Expert:

Prof. Prabhat Vaish, (Professor of Practice, Informatics, New Jersey Institute of Technology, New Jersey, USA) is a Senior Technology Executive, Innovation and business change champion with a demonstrated track record of developing disruptive technologies, implementing emerging IT solutions, and optimizing the use of legacy systems to create a competitive market advantage, expand capabilities, and strengthen governance, risk and compliance. He is Global technology strategy leader with extensive experience in the development of financial services risk and trading products. He blends a strategic perspective with detail-oriented tactical approach to manage costs, enhance productivity, and revenue growth. He is a strong consensus builder with a deep business understanding and extensive IT product knowledge. His key strengths are: Strategic Planning, Global Team Leadership, Governance, Project Management, FX, Rates, Equity & Credit Derivatives, Trading & Risk Systems, Basel II, SOX, DFA, CCAR, Cloud Computing, Big Data/Analytics, Machine Learning, Product Development, Java, Python, R, TensorFlow and related areas.

Host Faculty:

Prof. Rajeev Tripathi completed his B.Tech. in 1986, M.Tech. in 1992 and Ph.D. in 1998 from the University of Allahabad. He joined MNNIT Allahabad as a faculty member in 1988 and served as Director of the Institute from 7th October 2016 to 6th Feb 2022. He was a faculty member at the University of The West Indies, St. Augustine, Trinidad (WI) from 2002 to 2004. He was a Visiting Faculty at the School of Engineering Liverpool John Moores University U.K. in the year 1998 and 1999. Besides vast teaching and research experience of around 35 years, he also has vast administrative experience at MNNIT Allahabad. He worked as Chairman CSAB and C0-Chirman of JoSAA in 2020 for all India admissions in IITs NITs, IIITs and other CFTIs. He was Coordinator of, the Quality Improvement Program (QIP) from 2005 to 2016, Chairman, Senate Post Graduate Committee from 2005 to 2009, Dean, Academic Affairs from 2009 to 2011, Head, the Department of Electronics and Communication Engineering from 2011 to 2013, and Professor in charge, Training and Placement from 2011 to 2016. He has also worked as BoM member of Delhi Technical University, MMMUT Gorakhpur and many other institutions.

Prof. Tripathi has made pioneering research contributions and has solved several open problems. He has published more than 110 papers in international journals of repute(SCI) and 100 papers in conferences of repute and supervised 24 Ph.D. students. He has 03 patents. He has worked closely with the Government as well as industry on various problems and has successfully led and completed 11 research projects worth more than Rs 13 Crs. at national and international levels. Important among them include a sponsored project by Govt. of India and the British Govt. under the Indo-UK Science and Technology Research Fund and a project sponsored by the Ministry of Human Resource Development, Government of India. He is a well-known teacher and mentor who has not only graduated a large number of students and developed well-appreciated teaching modules but has also motivated and mentored many student innovation and entrepreneurial activities which have achieved unique successes. His has more than 2500 citations with 110 index of 55.

Prof. Tripathi has pioneered personnel and institute-level research collaboration with foreign universities and visited several countries in this regard. Important among them include Liverpool John Moore University, Liverpool, U.K., Barbados campus of the University of West Indies, Moncton New Brunswick, Canada, University of Waterloo (UoW), Waterloo, Canada, Spain, USA, etc., he has also taught for a couple of years in The University of The West Indies, St. Augustine, Trinidad (WI). Prof. Tripathi worked as a reviewer of many international journals including IEEE Communication Letters, Adhoc Networks, Elsevier, Wireless Personal Communication Springer, International Journal of Electronics, Taylor and Francis, IETE Journal of Research, Taylor and Francis and West Indian Journal of Engineering. He has organized many international conferences in the capacity of conference chair and co-chair and served as a program committee of several international conferences of repute in the area of wireless communication and networking.

Prof. Tripathi is a Senior member of IEEE, USA, a Life Fellow of the Institution of Electronics &Telecommunication Engineers (IETE), India, a Life Member of the Institution of Engineers (IE), India, Life Member of Indian Society of Technical Education (ISTE), India and Life Member of Indian Institute of Public Administration (IIPA), India.

Prof. G. P. Sahu is Professor and former Head, School of Management Studies, Motilal Nehru National Institute of Technology Allahabad, India. He has more than 26 years of teaching and research experience. He completed his one-year Post- Doctoral Fellowship program from California State University Monterey Bay, California, US, and PhD in Management from Indian Institute of Technology Delhi, India. His research interests are in the areas of MIS, E-governance, Green Information Systems, Digital Marketing, etc. Prof. Sahu has published around 115 research papers in international journals and conferences. He has coordinated a few international conferences. He has edited eleven books in the area of MIS and E-governance. Prof. Sahu has acted as a reviewer for many international journals. He is also a Guest Editor with International Journal of Electronic Governance. Prof. Sahu is Chairperson of the Special Interest Group on E-Governance, Computer Society of India; he has been on the jury for the CSI-Nihilent E- governance National Awards, India.

Contact:

Coordinator	Co-Coordinator and Local Coordinator, GIAN
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