Sukrit Mittal, Ph.D.

sukrit.mittal@iiit.ac.in * sukrit.mittal@franklintempleton.com

I am the Director of AI & Optimization Research at Franklin Templeton, leading a team of data scientists and developers. My work focuses on leveraging advanced AI, including Generative AI and Reinforcement Learning, and optimization techniques to conceptualize and develop innovative financial products. I have close to seven years of research experience in optimization and machine learning, actively collaborating with renowned researchers. Currently, I am applying reinforcement learning methods for solving the goals-based wealth management problem and exploring Generative AI for creating digital twins in financial processes.

EDUCATION

Data Science for Investment Professionals Certificate Jun. 2023 - Jun. 2024
CFA Institute, USA (**Credential**)

Ph.D. in ML-assisted Optimization Jul. 2018 - Aug. 2022
Indian Institute of Technology Roorkee, India CGPA : 9.47/10
Thesis: Machine Learning based Enhancements in Evolutionary Multi-objective Optimization (**Thesis**)
Advisors: Prof. Dhish K. Saxena, Prof. Kalyanmoy Deb and Prof. Erik D. Goodman

B.Tech. in Mechanical Engineering Jul. 2012 - Jun. 2016
Indian Institute of Technology Roorkee, India CGPA : 8.38/10

RESEARCH/WORK EXPERIENCE [LinkedIn]

Applied Mathematics Dec. 2025 - Present
International Institute of Information Technology (IIIT) Hyderabad
Guest Faculty (Finance)

AI & Digital Transformation Jun. 2022 - Present
Franklin Templeton Investments, Hyderabad, Telangana, India
Director, AI & Optimization Research

Computational Optimization and Innovation Laboratory Feb. 2020 - Jun. 2020
Michigan State University, East Lansing, Michigan, USA
Visiting Researcher (invited by Prof. Kalyanmoy Deb)

PUBLICATIONS/PATENTS [see complete list here]

Patent: System and Method for Engine Cylinder Deactivation
S. Mittal, S. Manocha, P. Pandey and R. Singh — Granted: 436263

Book: Machine Learning Assisted Evolutionary Multi- and Many-Objective Optimization
D.K. Saxena, **S. Mittal**, K. Deb and E.D. Goodman — Springer 2024 (**link**)

Working Papers:

A Pre-trained Reinforcement Learning Approach to Goals-Based Wealth Management
S. Das, H. Khadilkar, **S. Mittal**, D. Ostrov, D. Srivastav and H. Wang — [Journal, preprint]

Evolutionary Multi- And Many-objective Optimization: Enhancements using Machine Learning
D.K. Saxena, **S. Mittal**, K. Deb — [Book Chapter, accepted]

Journal Papers:

Interpreting Omega Ratio for Goals Based Wealth Management
H. Khadilkar, **S. Mittal**, S. Gorjala, H. Wang, A. Radhakrishnan and D. Srivastav — JWM 2025 (accepted)

A Unified *Innovized* Progress Operator for Enhancement in Evolutionary Multi- and Many-objective Optimization
S. Mittal, D.K. Saxena, K. Deb and E.D. Goodman — IEEE TEVC 2023 (**link**)

A Localized High-Fidelity-Dominance based Many-objective Evolutionary Algorithm
D.K. Saxena, **S. Mittal**, S. Kapoor and K. Deb — IEEE TEVC 2022 (**link**)

Enhanced *Innovized* Progress Operator for Evolutionary Multi- and Many-objective Optimization
S. Mittal, D.K. Saxena, K. Deb and E.D. Goodman — IEEE TEVC 2021 (**link**)

A Learning-based *Innovized* Progress Operator for Faster Convergence in Evolutionary Multi-objective Optimization
S. Mittal, D.K. Saxena, K. Deb and E.D. Goodman — ACM TELO 2021 (**link**)

Social entrepreneurship through forest bioresidue briquetting: An approach to mitigate forest fires in Pine areas of Western Himalaya, India
K.K. Joshi, V. Sharma and **S. Mittal** — Elsevier RSER 2015 (**link**)

Conference Papers:

Reinforcement learning for Multiple Goals in Goals-Based Wealth Management
S. Das, **S. Mittal**, D. Ostrov, A. Radhakrishnan, D. Srivastav and H. Wang — IEEE AIxB 2024 (**link**)

Embedding a Repair Operator in Evolutionary Single- and Multi-objective Algorithms
K. Deb, **S. Mittal**, D.K. Saxena and E.D. Goodman — EMO 2021 (**link**)

A Unified Automated *Innovization* Framework Using Threshold-based Clustering
S. Mittal, D.K. Saxena and K. Deb — IEEE CEC 2020 (**link**)

A Generic and Computationally Efficient Automated *Innovization* Method for Power-Law Design Rules
K. Garg, A. Mukherjee, **S. Mittal**, D.K. Saxena and K. Deb — ACM GECCO 2020 (**link**)

Learning-based Multi-objective Optimization Through ANN-Assisted Online *Innovization*
S. Mittal, D.K. Saxena and K. Deb — ACM GECCO 2020 (**link**)

PROJECTS

INNOVIZATION: Discovery of Innovative Knowledge through Optimization & ML Mar. 2019 - Sep. 2023
Funding agency: SPARC, Ministry of Education, Govt. of India
Role: Core contributor as student researcher (**project outcome**)

HIGHLIGHTS

[Keynote]: School of Artificial Intelligence & Data Science – IIT Jodhpur — Feb. 2026

[Lecturer]: ACM Winter School 2025 (AI & Finance) – IIIT Hyderabad — Dec. 2025

[Tutorial]: ACM Genetic & Evolutionary Computation Conference – GECCO'25 (Málaga, Spain) — Jul. 2025

[Tutorial]: IEEE Congress on Evolutionary Computation – CEC'25 (Hangzhou, China) — Jun. 2025

[Keynote]: Global Analytics Summit 2024 – AI in Finance (UT Austin, Texas, USA) — Nov. 2024

[Talk]: JOIM Fall Conference – AI in Finance (MIT, Boston, USA) — Oct. 2024

[Invited speaker]: Mahindra Technical Academy (Chennai, India) — Dec. 2019

[Judge]: BAJA-SAE (Indore, India) — Feb. 2019

[Award]: Best Graduate Engineer Trainee (Mahindra Research Valley) — Aug. 2017

[Reviewer]: ACM KDD 2024, IEEE CAI 2024, IEEE CEC 2023, IEEE SSCI 2022, IEEE CEC 2022.