

SANJAY BHATNAGAR

Technology Leader • Full-Stack Solutions Architect • Computational Sciences Expert

Retired Associate Professor

Flat No. H-103, Ganpati Enclave,
Dabawali Road, Bathinda, Punjab - 151001

Phone: +91 9815007864
Email: tosanjay2005@gmail.com

EXECUTIVE PROFILE

Visionary, enterprise-grade Technology Leader and Solutions Architect with over 35 years of masterful experience designing custom full-stack automated ecosystems, deploying complex campus-wide localized networks, and leading cross-functional governance frameworks. A proven pioneer who has built critical transactional workflow applications from scratch, directed large-scale procurement and budgetary committees, and engineered market-aligned academic paths. Combines strong technical expertise in advanced data architectures and scientific Python environments with senior executive governance capabilities to deliver secure, highly optimized organizational transformations.

CORE COMPETENCIES & TECHNICAL MASTERY

Enterprise Architecture:	Full-Stack Custom ERP Architectures, Secure Workflows, Web Platforms
Automation Engines:	Automated Portals (Admissions, Procurement/Purchase, Accounts, Examinations, HR/Recruitment)
Infrastructure Eng:	Campus Network Infrastructure Design, Core Routing Protocols, Datacenter Ops, 24/7 Availability
Data Engineering:	Python for Computational Sciences, Scientific Computing, Predictive Analytics Ecosystems (NumPy, Pandas)
Technical Expertise:	Advanced Data Structures & Algorithmic Analysis, Systems Programming, GPU Computing Pipelines
Corporate Governance:	Board of Studies (BoS) Leadership, Procurement Oversight, Cross-functional Operations, Strategic Planning

PROFESSIONAL LEADERSHIP EXPERIENCE

Associate Professor & Department Head / ITES Automation Lead

GZSCCET, MRSPTU, Bathinda

2010 – June 2026

- **University Automation & ITES Development:** Established the ITES department as Director, leading the end-to-end automation of critical institutional processes.
- Architected, deployed, and maintained high-security enterprise systems—including the core Admission portal, dynamic institutional websites, and workflow portals for Accounts, Exams, IQAC, R&D, Procurement, and Recruitment.
- Served as the sole regular faculty member in the Department of ITES under MRSPTU to spearhead the comprehensive end-to-end automation of critical institutional processes. Architected, designed, and maintained high-impact systems, including the core Admission portal, responsive/dynamic websites, and high-security enterprise workflow portals for Purchase/Procurement, Accounts, Examinations, IQAC, R&D, and Recruitment. These core systems remain actively in production today, reflecting exceptional architecture reliability and organizational impact.

- **Business Unit Incubation & Growth:** Appointed as the exclusive regular founding Head to establish the Department of Computer Applications later renamed to Computational Sciences from scratch with MCA program. Guided its vertical growth by engineering market-aligned programs like the BCA-MCA Dual Degree, B.Sc. Graphics & Web Design, and B.A. Computer Science.
- **Executive Leadership & Capital Governance:** Spearheaded large-scale resource optimization, serving actively as Department Head, Chairman of the Board of Studies (BoS), the Department Doctoral Research Committee (DDRC), and Lead of the Central Purchase Committee.
- **Institutional Accreditation & Compliance:** Collaborated with cross-functional faculty networks to achieve the monumental milestone of MRSPTU's national NAAC B++ Accreditation, coordinating strategic departmental data structures, internal audits, and resource compliance workflows to secure the benchmark.
- **Advanced Technical Instruction:** Conducted high-tier technical instruction on Data Structures, Algorithmic Complexity analysis, Scientific Python Frameworks, and GPU computing pipelines.

Lecturer (Senior Scale / Selection Grade)

GZSCCET, MRSPTU, Bathinda

2006 – 2010

- Modernized multi-department technology curricula across foundational engineering disciplines (Electronics, Electrical, Textile, Mechanical, Civil Engineering) to emphasize code delivery and real-world system modeling.
- Co-authored institutional frameworks establishing core transport protocols and secure packet-routing baselines.

Lecturer (Computer Practices) & Network Infrastructure Engineer

GZSCCET, MRSPTU, Bathinda

April 1996 – 2006

- **Large-Scale Network Engineering:** Conceptualized and deployed the first centralized, campus-wide network routing infrastructure, bringing reliable, uninterrupted 24/7 compute capabilities and data access to thousands of institutional users.
- **Academic Infrastructure Launch:** Strategized and co-launched the formal B.Tech Computer Science & Engineering (CSE) academic branch, while single-handedly setting up the central computer lab operations.
- **Operational Resilience:** Successfully optimized and executed a high-volume delivery model, managing a rigorous schedule of 36 engineering technology lectures per week without compromising infrastructure upkeep.

System Programmer

REC (now National Institute of Technology - NIT) Kurukshetra

April 1991 – April 1996

- Programmed low-level terminal software scripts, administered multi-user operating system configurations, and automated complex mathematical modeling setups for engineering design projects.

KEY AWARDS, MENTORSHIPS & CONFERENCES

- **State-Level Award of Excellence (2019):** Conferred at a state-level program by the District Administration for exceptional IT leadership as the Head of the IT Team managing regional computational workflows for Elections of Rural Bathinda.
- **National-Level IBM TGMC Mentor & Finalist (2012):** Guided engineering teams for IBM's 'The Great Mind Challenge' (TGMC), capturing a Certificate of Excellence and finishing among the Top 10 national teams.
- **Smart Hackathon Inspiration Award (2017):** Served as technical mentor for engineering teams during the national Smart Hackathon, winning the Inspiration Award for software design.
- **Elite Adjudication from NITTTR Chandigarh:** Recognized and formally adjudged as the Best Teacher across all constituent colleges and University Departments by an independent external expert committee from NITTTR Chandigarh.
- **National Conference Leadership (2014):** Served as Co-coordinator for the National Conference on 'Upcoming Trends in Computer Science & Engineering'.

- **AICTE FDP Leadership (1999):** Co-coordinated the institution's first-ever AICTE-approved Faculty Development Program (FDP).

EDUCATION & CREDENTIALS

Degree / Program	Institution / University	Year
M.Phil. (Computer Science)	Ch. Devi Lal University, Sirsa	2007
M.Sc. (Computer Science)	Maharishi Dayanand University, Rohtak	2002
M.Sc. (Statistics & Operations Research)	Kurukshetra University, Kurukshetra	1988
B.Sc. (Sciences)	University College, Kurukshetra University	1985
Matriculation	Senior Model School (HSEB)	1980

Extra-Curricular Activities

SN	NAME/TYPE OF ACTIVITY	LEVEL/ POSITION	YEAR & DURATION
1.	National conference Upcoming Trends in Computer Science & Engineering	Co-coordinator	December 9-10, 2014
2.	Attended more than 15 AICTE approved STC		

Co-Curricular Activities

SN	NAME/TYPE OF ACTIVITY	LEVEL/ POSITION	YEAR & DURATION
1.	UDAAN -16	Organizer	February 11, 2016

Publications

Journals/ Conferences	Total Publication	Name of Journal/ Conference (In case of Journal; Whether in UGC CARE/SCOPUS/SCI/PEER Reviewed Journal)	Description of Journal/Conf Name/Venue/ Date of Conf
Int'l Journal			
National Journal			
Int'l Conference	01	Intelligent System & Networks IISN 2008	February 14-16 2009
Nat Conference	12		
	i)	Current Trends in Electrical Engineering -08 CTEE 08	February 14, 2008
	ii)	Current Trends in Electrical Engineering -08 CTEE 08	February 14, 2008
	iii)	Advancements in Sustainable Practices & Innovations in Renewal Energy	October 10-11, 2013
	iv)	Latest Development in Materials, Manufacturing & Quality Control	February 13-14, 2014
	v)	Upcoming Trends in Computer Science &	December 9-10, 2014

		Engineering	
	vi)	Upcoming Trends in Computer Science & Engineering	December 9-10, 2014
	vii)	Upcoming Trends in Computer Science & Engineering	December 9-10, 2014
	viii)	Upcoming Trends in Computer Science & Engineering	December 9-10, 2014
	xi)	Upcoming Trends in Computer Science & Engineering	December 9-10, 2014
	x)	Upcoming Trends in Computer Science & Engineering	December 9-10, 2014
	xi)	Upcoming Trends in Computer Science & Engineering	December 9-10, 2014
	xii)	Upcoming Trends in Computer Science & Engineering	December 9-10, 2014

(SANJAY BHATNAGAR)