

Dr. BHARAT BHUSHAN JINDAL

Ph.D. (Structural Engineering)

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ABOUT SELF

Passionate Academician with more than 26 years of experience in Teaching, Industrial, and Administration at various renowned Universities and Industrial Organisations. A rich experience of working with teams of faculty members and industrial experts.

RESEARCH PROFILE

Publications:

- 45 + Publications, including **18 Nos. Thomson Reuter SCI/SCIE/ESCI/SCOPUS** indexed research articles published in international peer-reviewed journals.
- One Book Published by LAMBERT PUBLISHERS, GERMANY.
- One Book Chapter in "**COMPOSITE MATERIALS Manufacturing, Properties, and Applications**" published by **ELSEVIER- Netherland**.
- Published Research papers in collaboration with various researchers from **Australia, Saudi Arabia, Cameroon, Indonesia, United Arab Emirates, Shanghai China, NIT Srinagar, VIT Vellore, DCRUST Muruthal, and SMVDU**.
- Guided Ph.D. scholars from various institutions in writing research papers.

Reviewer / Scientific Committee Member:

1. Active Reviewer with various International Peer-Reviewed SCI, Scopus, and Web of Science indexed Elsevier and Springer journals.
2. Reviewed the book titled "Innovative Concrete Materials: Development and Trends" by ELSEVIER.
3. Contributed as a Scientific Committee Member in the "3rd international conference on Innovative Technologies for Clean and Sustainable Development", proceedings published in Materials Today and RILEM Book series organized by Maharaja Agrasen University, Baddi, HP, and NITTTR Chandigarh.
4. Editorial Board Member of SCIREA Journal of Civil Engineering and Building Construction.
5. Editorial Board Member of AMC Indian Journal of Civil Engineering.
6. Editorial Board member of "Erudite Journal of Engineering Technology and Management Sciences (EJETMS)."

PATENTS:

1. Patent Titled "Composition of High Compressive Strength Low Calcium Fly Ash Based Geopolymer Concrete Incorporating Alccofine 1203"

Patent Application No. **201711012671** by IPR India

Published on 10.05.2019 and currently under examination stage.

2. Patent Titled "Composition of Energy Efficient Fly Ash Based Translucent Concrete and Methods Thereof" filed with IPR India.

Patent Application No. **201911001991**

Current Status: Filed under investigation

PROFESSIONAL SYNOPSIS – Work Experience 26 + Years

Job Title	Employer Organisation	Duration
Assistant Professor	Shri Mata Vaishno Devi University, Katra, Jammu & Kashmir	28.11.2018 to till date
Associate Professor and Head of the department	Maharishi Markandeshwar University, Ambala, Haryana	05.01.2015 to 26.11.2018
Associate Professor	Baddi University of Emerging Sciences and Technology, Himachal Pradesh	23.08.2013 to 24.12.2014
Associate Professor and Head of Department	Chandigarh University, Chandigarh	12.06.2012 to 23.08.2013
Associate Professor	Baddi University of Emerging Sciences and Technology, Himachal Pradesh	06.08.2011 to 11.06.2012
Associate Professor	Maharishi Markandeshwar University, Haryana	05.08.2011 to 06.12.2011
Deputy Area Manager	Jaiprakash Associates Ltd., (Bathinda – Punjab)	02.12.2009 to 04.08.2011
Assistant Manager	Ambuja Cement Limited, (Jalandhar – Punjab)	16.02.2008 to 30.11.2009
Lecturer	Giani Zail Singh College of Engg. & Technology (Govt. of Punjab), Bathinda	01.08.2007 to 14.02.2008
Associate Engineer	Shelter Architos Bathinda	01.04.1995 to 31.07.2006

ACADEMIC SYNOPSIS

	Name of the course	Name of the Board/University	Year
Ph.D.	Structural Engineering	I.K.G. Punjab Technical University	2018
Master's degree	M.Tech. (Structures)	Punjab Technical University	2012
Master's degree	M.E. (Soil Mechanics and Foundation Engineering)	Punjab Technical University	2011
Bachelor's degree	Civil Engineering	Nagpur University	1993
10+2	Non-Medical	Punjab School Education Board	1989
10th Class	Matric	Punjab School Education Board	1987

Ph.D. Thesis:

"Permeability and Strength Characteristics of Geopolymer Concrete", Punjab Technical University, Kapurthala.

Advisors: Dr. Sanjay K. Sharma, Professor, Department of Civil Engineering, NITTTR Chandigarh.
Dr. Dharendra Singhal, Professor & Chairperson, DCRUST, Murthal, Haryana.

Masters Dissertations:

1. M.Tech. (Structures): Comparative Study of Design of Water Tanks with Reference to IS: 3370.

Advisors: Dr. Dharendra Singhal, Professor, Department of Civil Engineering, Giani Zail Singh College of Engineering Bathinda.

2. M.E. (Soil Mechanics and Foundation Engg.): Effect of Pond Ash, Rice Husk Ash, Cement and Phosphogypsum on CBR Value of Silty Soil.

Advisors: Dr. J.N. Jha, Professor, Department of Civil Engineering
Dr. K.S. Gill, Associate Professor, Department of Civil Engineering
Guru Nanak Dev Engineering College, Ludhiana.

Research Publications (Thomson Reuter Listed Journals)

Sr. No.	Title of the Research Paper	Journal's Name and Place of Publication	Year	Impact Factor	Indexing
1.	Geopolymer concrete with metakaolin for sustainability: a comprehensive review on raw material's properties, synthesis, performance, and potential application	Environmental Science and Pollution Research (Springer Nature) Switzerland	2022	4.223	SCI SCIE Scopus Indexed
2.	Hygrothermal dynamics for developing energy-efficient buildings: Building materials and ventilation system considerations	Energy and Buildings (Elsevier) Netherland	2022	5.879	SCIE SCOPUS
3.	Influence of nano-TiO ₂ , nano-Fe ₂ O ₃ , nanoclay and nano-CaCO ₃ on the properties of cement/geopolymer concrete	Cleaner Materials (Elsevier) Netherland	2022	NA	NA
4.	Experimental study on the properties of ternary blended geopolymer rich mortar	Innovative Infrastructure Solutions (Springer)	2022	1.97	ESCI SCOPUS UGC CARE
5.	Structural health monitoring methods, dispersion of fibers, micro and macro-structural properties, sensing, and mechanical properties of self-sensing concrete—A review	Structural Concrete Wiley online library	2021	3.131	SCIE Scopus
6.	The effect of nanomaterials on properties of geopolymers derived from industrial by-products: A state-of-the-art review	Construction and Building Materials (Elsevier) Netherland	2020	6.141	SCIE Scopus
7.	Characterization and properties of geopolymer nanocomposites with different contents of nano-CaCO ₃	Construction and Building Materials (Elsevier) Netherland	2020	6.141	SCIE Scopus
8.	Effects of ultrafine slag as mineral admixture on the compressive strength, water absorption and permeability of rice husk ash-based geopolymer concrete	Materials Today: Proceedings (Elsevier)	2020	1.240	Scopus indexed

Sr. No.	Title of the Research Paper	Journal's Name and Place of Publication	Year	Impact Factor	Indexing
9.	Strength enhancement of concrete incorporating alccofine and SNF based admixture	Advances in Concrete Construction Techno Press Korea	2020	3.214	SCIE ESCI Scopus
10.	Investigations on the properties of geopolymer mortar and concrete with mineral admixtures: A review	Construction and Building Materials (Elsevier)	2019	6.141	SCIE Scopus Indexed
11.	Mechanical and microstructural study of rice husk ash geopolymer paste with ultrafine slag	Advances in Concrete Construction Techno-Press, Korea	2019	3.214	SCIE ESCI Scopus
12.	Feasibility study of ambient cured geopolymer concrete –A review	Advances in Concrete Construction Techno-Press, Korea	2018	3.214	SCIE ESCI Scopus
13.	Mechanical and microstructural properties of fly ash based geopolymer concrete incorporating alccofine at ambient curing	Construction and Building Materials (Elsevier) Netherland	2018	6.141	SCIE Scopus
14.	Enhancing Mechanical and Durability Properties of Geopolymer Concrete with Mineral Admixture	Computers and Concrete Techno-Press, Korea	2018	3.948	SCIE Scopus
15.	Predicting Relationship between Mechanical Properties of Low Calcium Fly Ash-Based Geopolymer Concrete	Transactions of the Indian Ceramic Society Taylor & Francis	2017	1.729	SCIE Scopus
16.	Strength and Permeation properties of Alccofine activated low calcium fly ash geopolymer concrete	Computers and Concrete Techno-Press, Korea	2017	3.948	SCIE Scopus
17.	Experimental study on geopolymer concrete prepared using high-silica RHA incorporating alccofine	Advances in Concrete Construction Techno-Press, Korea	2017	3.214	SCIE ESCI Scopus
18.	Improving compressive strength of low calcium fly ash geopolymer concrete with alccofine	Advances in Concrete Construction Techno-Press, Korea	2017	3.214	SCIE ESCI Scopus

Research Publications presented in Conferences

Sr. No.	Title of the Research Paper	Journal's Name and Conference Title	Year
Presented in National Conferences			
1.	Enhancing strength properties of fly ash based geopolymer concrete with ultrafine Slag at ambient temperature	6 th National Conference on Engineering Research & Applications, ERA-2019, Rayat Bahra University, Mohali, India	2019
2.	Pozzolanic Potential of Dry Leaf Ash and Utilization as Supplementary Cementitious Material	6 th National Conference on Engineering Research & Applications, ERA-2019, Rayat Bahra University, Mohali, India	2019
3.	Analysis of Causal Factors of Accidents near Mahipalpur Junction on NH -8 in Delhi	IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE)	2016
4.	Stabilization of Silty Soil by Pond Ash, Rice Husk Ash, Cement and Phosphogypsum	IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE)	2016
5.	Development of High Strength Fly Ash based Geopolymer Concrete with Alccofine	IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE)	2015
6.	Effect of variation of fly ash on the compressive strength of fly ash based Geopolymer Concrete	IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE)	2015
7.	Pozzolanic potential of Sugarcane Bagasse Ash as verified through TGA and XRD Techniques	IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE)	2015
8.	Geopolymer Concrete – A Review	SSRG International Journal of Civil Engineering (SSRGIJCE)	2015
9.	Suitability of Steel Fiber Reinforced Concrete for RCC Water Tanks	SSRG International Journal of Civil Engineering (SSRG-IJCE)	2015
10.	Effect of fly ash on CBR value of Sandy soil	SSRG International Journal of Civil Engineering (SSRGIJCE)	2015
11.	Energy Crisis and Sustainable Construction Practices- An Overview,	National Conference on "Advancements in Construction Technology & Management" NCACTAM-2013, IGCE Chandigarh.	2013

Sr. No.	Title of the Research Paper	Journal's Name and Conference Title	Year
12.	Nanomaterials: A concrete revolution in Civil Engineering	National Conference on "Advancements in Construction Technology & Management" NCACTAM-2013, IGCE Chandigarh.	2013
13.	A Review on Alccofine-A New generation micro fine concrete material& Management	National Conference on "Advancements in Construction Technology, NCACTAM-2013, IGCE Chandigarh.	2013
14.	Comparative Study of Design of Water Tank with reference to IS -3370	Innovative Challenges in Civil Engineering, GZSCET, Bathinda	2012
15.	Suitability of Steel Fiber-reinforced concrete for water retaining structures	Innovative Challenges in Civil Engineering, GZSCET, Bathinda	2012
16.	Comparative study of design of rectangular water tanks with reference to IS-3370	National Conference on "New Innovations in Science, Technology and Management" NISTM-12, RITM, Savile Palwal, Haryana.	2012

Presented in International Conferences

1.	Improving the strength gaining properties of fly ash-based geopolymer concrete	6 th International Conference on Recent Trends & Advancement in Engineering and Technology, Shri Mata Vaishno Devi University, Katra.	2020
2.	Predicting Durability properties of rice husk ash-based geopolymer concrete with alccofine as mineral admixture	International Conference on Advances in Science & Technology (ICAST-2018), Rayat Bahra University Ropar Campus	2018
3.	Pozzolanic potential of Sugarcane Bagasse Ash as verified through TGA and XRD Techniques	International Multi Track Conference on Sciences, Engineering & Technical Innovations, IMTC14, CT Institute of Engineering Management & Technology, Jalandhar	2014

Workshops / FDP/Refresher Courses / Seminars/ STTP attended

Workshops / FDP/Refresher Courses / Seminars/ STTP attended			
Sr. No.	Title	Organised by	Year
1.	Faculty Development Programme on Structural design with STAAD PRO during 23-27 August 2021	NITTTR Chandigarh	2021
2.	Five days online Short term Course on Analysis and Design of Structures: Practice and Challenges, February 15-19,2021	NIT Jalandhar	2021
3.	Online FDP during 1-6 June 2020 on Technological Industrial Practices organized under TEQIP-III Twinning Activity	In collaboration with REC Ambedkar Nagar (UP) organized by J.C. Bose University of Science & Technology YMCA, Faridabad.	2020
4.	International Webinar on Smart Cities: Beyond Pandemics dated July 10-11, 2020.	Birla Institute of Technology and Science, Pilani (BITS Pilani)	2020
5.	TEQIP III Sponsored One Week Online Short-Term Course on Prospects of Sustainability in Pavement Construction in India dated July 14-18, 2020.	NIT Jalandhar	2020
6.	LaTeX training in January 2020 semester offered by the Spoken Tutorial Project, IIT Bombay.	GNA University funded by the National Mission on Education through ICT, MHRD, Govt. of India	2020
7.	Thematic Workshop "Vulnerability Atlas of India and Disaster Resistant Design & Construction Practices, held on May 03, 2019.	Building Materials and Technology Promotion Council, Ministry of Housing & Urban Affairs, Govt. of India.	2019
8.	Faculty Development Program for Students Induction (FDP-SI) during 02-08 July 2019.	IIT Ropar, Punjab, organized by AICTE Delhi.	2019
9.	National Seminar on UNNAT BHARAT ABHIYAN: Prospects and Challenges On 28th and 29th November 2019	NITTTR Chandigarh in collaboration with IIT Delhi & AICTE	2019
10.	A Week-Long Short-Term Course on Classroom Communication through ICT, May 28 – June 01, 2018	NITTTR Chandigarh	2018
11.	Faculty Development Programme on Quality Teaching In Higher Education on 20 th – 22 nd June 2016	M.M. University, Sadopur, Ambala	2016
12.	AICTE recognized Short Term Course on Sustainable Development: Challenges and Opportunities through ICT, October 12 – October 16, 2015.	NITTTR Chandigarh	2015
13.	AICTE recognized Short Term Course on Environmental Engineering and Management through ICT, March 03 – March 07, 2014.	NITTTR Chandigarh	2014
14.	AICTE recognized Short Term Course on Induction Training Programme through ICT, January 13 – January 17, 2014.	NITTTR Chandigarh	2014
15.	Workshop on Recent Trends & Challenges in Civil Engineering (TEQIP-II Sponsored) on 25.04.2014.	Civil Engineering Department, PEC University of Technology, Chandigarh	2014

Invited Talks and Expert Lectures

Sr. No.	Title of Expert Lecture	Date	Organizer	Event
1.	Industrial Waste and Recycled Materials Utilization in Green Concrete and Field Applications	Feb. 7-12, 2022	J.C. Bose University of Science and Technology, YMCA, Faridabad, Haryana, India	AICTE Sponsored One Week Online Faculty Development Programme titled " <i>Research & Innovations in Engineering.</i> "
2.	Industrial Waste and Recycled materials Utilization in Green Concrete and Field Applications	August 23-27, 2021	Indo Global College of Engineering Abhipur, New Chandigarh, Mohali (Punjab)	AICTE Sponsored Short Term Training Programme (STTP) on Recycling Materials in Highway Construction
3.	Industrial Waste and Recycled materials Utilization in Green Concrete and Field Applications	July 22, 2021	Department of Civil Engineering, CHITKARA University, Chandigarh	Expert Talk delivered to faculty, scholar, and students of Civil Engg.
4.	Industrial Waste and Recycled Materials use in the Development of Green- Environmentally Friendly Pavements	July 19-26, 2021	Indo Global College of Engineering Abhipur, New Chandigarh, Mohali (Punjab)	AICTE Sponsored Short Term Training Programme (STTP) on Recycling Materials in Highway Construction

Notable Peer Contributions

1. Editorial Member of many International and National peer-reviewed journals.
2. Certified Reviewer of more than ten peer-reviewed SCI/ESCI/SCIE/Scopus indexed international journals.
3. Approved external examiner and paper setter for various universities.
4. Member Scientific Committee & Reviewer for 3rd international conference on Innovative Technologies for Clean and Sustainable Development was held in Chandigarh, India at NITTTR Chandigarh between 19th and 21st February 2020.
5. Reviewer for International Conference on INNOVATIVE TECHNOLOGIES FOR CLEAN AND SUSTAINABLE DEVELOPMENT organized by Chitkara University, Himachal Pradesh and NITTTR Chandigarh held on Oct. 14-15, 2021.
6. Book Reviewer for Innovative Concrete Materials: Development and Trends by Elsevier USA.

Notable Credits in Job Assignments

Current Job : **Designation:** Assistant Professor

Job Assignments:

- Teaching UG B.Tech. Civil Engineering
- Department Minor and Major Project Coordinator
- Departmental Training and Placement Coordinator
- Invited member Board of Studies – SoCE
- Academic Affairs Committee Member
- School Purchase Committee Member
- Mentoring of B.Tech. Civil Students
- SoCE – Laboratories In-charge (Concrete Technology and Structural Analysis)
- Unnat Bharat Abhiyaan Coordinator, SMVDU.
- Coordinator SMVDU -Swachh Bharat Abhiyaan
- Academic and Administrative Internal Audit Committee Member
- Joint Warden – Vidhaynchal Hostel
- Developed **YouTube Channel for Civil Engineering Students**

PROMINENT PREVIOUS ASSIGNMENTS

Organization: Maharishi Markandeshwar University, Ambala, Haryana

Designation: Associate Professor & Head, Department of Civil Engineering

Academic assignments handled:

- Teaching U.G. Classes of Civil Engineering.
- Departmental Research In charge.
- Chairman Board of Studies.
- Departmental NAAC Coordinator during NAAC documentation preparation and NAAC team visit.
- Responsible as Centre Superintendent for conducting University Examinations.
- Departmental NSS Coordinator.
- Departmental Industrial Visits coordinator.
- Training and placement coordinator of Civil Engg. Department.
- Civil Engineering department Alumni In charge.
- Discipline In charge of various University activities.

**Organization: Baddi University of Emerging Sciences & Technologies, Baddi
Himachal Pradesh**

Designation: Associate Professor, Department of Civil Engineering

- Worked as Associate Professor teaching UG and PG classes.
- Departmental Project Coordinator.
- Departmental Industrial Visits coordinator.
- Active member of Board of Studies.
- Departmental timetable coordinator.

Organization: Chandigarh University, Gharuan, Chandigarh (Punjab).

Designation: Associate Professor & Head, Department of Civil Engineering

- Worked as Head and Associate Professor Department of Civil Engineering.
- Chairperson of Board of Studies.
- Member of University Academic council.
- Developed the Curriculum and syllabi of B.Tech. Civil Engineering.
- Established various laboratories in the department.
- Conducted various Industrial Visits for B.Tech. Students.
- Organised FDPs and Expert lectures.
- Organised Experts Lectures from Industry experts.

Organization: JAYPEE Cements Limited, Bathinda (Punjab)

Designation: Deputy Area Manager – Technical Services

- Worked as Deputy Area Manager Technical Services leading a team.
- Conducted various activities in coordination with professionals in brand building.
- Delivered a number of technically expert lectures to the prospective audience.
- Organised various relation-building activities for professionals.

Organization: AMBUJA Cements Limited, Jalandhar and Amritsar

Designation: Assistant Manager – Technical Services

- Worked as Assistant Manager Technical Services leading a team.
- Conducted various technical seminars.
- Provided consultancy of Concrete Mix Design to construction projects.
- Brand promotion activities with professionals.

Date: 10.05.2022

Dr. Bharat Bhushan Jindal

Place: SMVDU