

# **CURRICULUM VITAE**

## **PERSONAL DETAIL**

**Name** SYED MOHAMMAD ABBAS  
**Designation:** Professor  
**Nationality:** Indian  
**Date of Birth:** July 5, 1965  
**Mobile:** +91 9868858887; +91 11 26318160  
**Email:** [abbas\\_sm@hotmail.com](mailto:abbas_sm@hotmail.com);  
[sabbas@jmi.ac.in](mailto:sabbas@jmi.ac.in)  
**Area of Specialization:** Geotechnical Engineering  
**ORCID ID.** 0000-0002-4236-6823

## **ACADEMIC QUALIFICATIONS**

<b>Degree</b>	<b>Board / University</b>	<b>Year</b>	<b>Division/ Grade</b>	<b>Subjects</b>
Ph.D.	Indian Institute of Technology Delhi, India	2003	Awarded	Civil Engineering (Geotechnical Eng.)
M.Sc. in Engineering	AMU, Aligarh, India	1993	I	Building Engineering
B.Sc. Engineering	AMU, Aligarh, India	1990	I	Civil Engineering

## **EMPLOYMENT PROFILE**

<b>Job Title</b>	<b>Employer</b>	<b>From</b>	<b>To</b>
Professor	Jamia Millia Islamia, New Delhi, India	Jan. 2012	Till Date
Professor*	Majmaah University, Al Majmah, Kingdom Saudi Arabia	Sept. 2014	June 2017
Associate Professor	Jamia Millia Islamia, New Delhi, India	Aug. 2008	Jan. 2012
Reader	Jamia Millia Islamia, New Delhi, India	Aug. 2005	July 2008
Lecturer (Sr. Scale)	Jamia Millia Islamia, New Delhi, India	Aug. 2000	July 2005
Lecturer	Jamia Millia Islamia, New Delhi, India	March 1994	July 2000

*\*-On Extra Ordinary Leave from Jamia Millia Islamia*

## Ph.D. Theses GUIDANCE

Name of the Scholar	Title of Thesis	Status
Suruchi Sneha	Sequential Effect of Nearby New Construction on Diaphragm Wall under Static and Dynamic Loading	Submitted
Sumeet Tabassum Amin	Positional Effect of a New Tunnel on an Existing Tunnel under Earthquake Loading	Shortly to be submitted
Musabur Rehman	Static and Dynamic Response of Existing Pile Foundation due to Tunnelling in Vicinity	Submitted
Ankush Chaudhary	Effect of Diaphragm Wall Construction on Existing Structures in Vicinity	Shortly to be submitted
Adil Arfin	Optimal Stability Enhancement of Natural and Man-Made Slopes	In Progress
Mahmood Mohammed Taib Taher Maarooof	Impact of On-Ground Explosion on the Underground Structures	In Progress
Gaurav Rastogi	Non-Linear Dynamic Analysis of Multi- Storeyed Buildings using Finite Element Approach	Awarded in 2016
Raju Sarkar	Geotechnical Characterization and Utilization of Pond Ash in NCR-Delhi	Awarded in 2012

*\*-Prime Minister Research Fellowship*

## M.Tech. Theses GUIDANCE

Name of the Scholar	Title of Thesis	Status
+6		
Rupesh Singh Parihar	Seismic Analysis of Earthen Slopes Subjected to Building on Raft Foundation	Awarded in 2021
Kaifa	Seismic Analysis of Pile Foundation Subjected to Vertical and Lateral Loads	Awarded in 2021
Nadia Mubarak	Seismic Analysis of Soil Slopes Reinforced with Polypropylene Fibres subjected to Building Loads at variable places	Awarded in 2020
Inayat Gul	Seismic Analysis of Earthen Slopes subjected to Buildings with Pile Foundation	Awarded in 2020
Aashutosh Kumar	Seismic Analysis of Circular Tunnels in Liquefiable Soils	Awarded in 2019
Fauzia Tabassum	Analysis of Different Slopes subjected to Earthquake Loading	Awarded in 2019
Sumi Tabassum	Seismic Analysis of Underground Tunnels	Awarded in 2018
Musab ur Rehman	Seismic Analysis of Pile Foundation passing through Liquefiable Soils	Awarded in 2018
Imteyaz Ahmad	Seismic Stability of Slopes made up of Locally Available Soil Mixed with Marble Dust & Shredded Tyre Rubber	Awarded in 2014
Sumaiya Khanam	Seismic Stability of Slopes made up of Locally Available Soil Mixed with Marble	Awarded in 2014

	Dust & Water Treatment Plant Sludge	
Sabahat Ali Khan	Slope Stability Improvement using different Ground Improvement Techniques	Awarded in 2013

## AWARDS & RECOGNITIONS

Year of Award	Name of the Award	Awarding Organization
2019	Best Paper Award	ICSC, Jamia Millia Islamia
2017	Dean's First Prize in teaching and quality culture	Majmaah University, KSA
2008	Excellent IJOG Paper Award	International Association for Computer Methods and Advances in Geomechanics
1998-2001	Research Associateship	IIT Delhi

## DETAILS OF ACADEMIC WORK IN INDIA

### (i) Curriculum Development

- Revised Curriculum of B. Tech. (Civil)
- Member of a committee for curriculum development of M. Tech. (Earthquake Engineering)

### (ii) Courses taught at Postgraduate and Undergraduate levels

Solid Mechanics  
Mechanics of Solids  
Soil Mechanics  
Transportation Engineering  
Advanced Foundation Engineering  
Ground Improvement Techniques  
Geotechnical Earthquake Engineering  
Soil Mechanics and Foundation Engineering-I  
Soil Mechanics and Foundation Engineering-II  
Soil Mechanics and Foundation Engineering-III

### (iii) Other contribution(s)

Modernized the Soil Mechanics & Foundation Engineering Laboratory

## DETAILS OF MAJOR R&D PROJECTS

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Study of Seismic Performance Based Design of Building Structures	University Grant Commission	2015	Till date	Ongoing
Testing and Constitutive Modeling of Rockfill Materials	MoWR	1999	2001	Completed

**ACADEMIC/ADMINISTRATIVE RESPONSIBILITIES OF UNIVERSITY IN INDIA**

Position	Faculty/Department/Centre/Institution	From	To
Student Advisor	Department of Civil Engineering, Jamia Millia Islamia, New Delhi, India	2005	2014
Deputy Proctor	-do-	2006	2008
Assistant Proctor	Jamia Millia Islamia, New Delhi, India	2005	2006
Control Room In-charge of Entrance Examinations	F/O Engineering & Technology, Jamia Millia Islamia, New Delhi, India	2004	2007

**OTHER ACADEMIC/ADMINISTRATIVE RESPONSIBILITIES IN INDIA**

Position	Institution	From	To
Expert of PhD Review Committee	Uttarakhand Technical University, Uttarakhand	2019	2019
Subject Expert	UPSC	2017	Till Date
Competitive Exam Paper Setter for recruitment of Assistant Engineers	Orissa and Haryana Public Service Commissions	2017	2019
Expert in Selection Committees for Faculty Positions	Islamic University, Awantipora, Jammu & Kashmir	2018	2018
Advisor in Interview Board	Staff Selection Board (Northern Region), New Delhi	2009	2014
Expert in Selection Committees for Faculty Positions	GL Bajaj Group of Institutions, Mathura, UP	2010	2014
Examiner and Evaluator of Theses	Delhi Technological University, Delhi	2010	2014
Examiner and Evaluator of Theses	AMU, Aligarh, UP	2008	2014

**ACADEMIC FOREIGN ASSIGNMENTS**

Country	Duration of Visit	Program
Germany	Oct. 3 to 12, 2009	Cultural Exchange Program
Majmaah University Kingdom of Saudi Arabia	Sept. 2014-June 2017	<ul style="list-style-type: none"> <li>Professor, Department of Civi &amp; Environmental Engineering</li> <li>ABET SAR Coordinator</li> <li>Time-Table Coordinator</li> </ul>

**CONFERENCE/ WORKSHOP ORGANIZED**

Title of Conference	Level of Event	Date (s)	Role	Venue
Smart Cities: Opportunities & Challenges	International	14-16 March, 2019	Organizing Secretary	New Delhi
Seismic Vulnerability of Structures (SVS-18)	National	March 10, 2018	Dy. Coordinator	New Delhi
Landslides Risk Management and Mitigation	International	October 26, 2018	Organizer	New Delhi

Geotechnical and Structural Aspects of Earthquake Eng. (GSEE'07)	National	Aug. 4 & 5, 2007	Organizing Secretary	New Delhi
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## PARTICIPATION IN WORKSHOPS/ SYMPOSIA/ CONFERENCES IN INDIA

Date (s)	Title of Activity	Level of Event	Role	Organized by	Venue
1-2 Nov. 2011	Conference	National	Speaker & Chairperson	DTU	Delhi
24-25 Feb. 2011	Conference	National	Participant	CBRI	Roorkee
1-6 Dec. 2008	Conference	International	Award Recipient	IACMAG	Goa

## INVITED TALKS DELIVERED

Topic	Date	Inviting Organization
Ground Improvement Techniques	09.03.2013	Dept. of Civil Eng., AMU, Aligarh, India
Constitutive Modeling of Rockfill Materials	01.11.2010	Dept. of Civil Eng., Delhi Technological University, India

## MEMBERSHIP OF LEARNED SOCIETIES

Type of Membership	Organization	Membership No.
Member	American Society of Civil Engineers (ASCE)	497367
Fellow Member	International Society for Research and Development (ISRD)	-
Fellow	Institution of Engineers (India)	F-125817-2
Chartered Engineer	Institution of Engineers (India)	F-125817-2
Life Member	Indian Geotechnical Society (IGS)	2717
Life Member	Indian Society of Earthquake Technology (ISET)	1356
Life Member	Indian Geotechnical Society-Delhi Chapter	849

## MEMBER OF COMMITTEES

Name	Institution	Position
Departmental National Board of Accreditation (NBA) Process	Dept. of Civil Engineering, Jamia Millia Islamia, N. Delhi	Member
Scientific Research Ethics	College of Engineering, Majmaah University, Al-Majmaah, KSA	Vice Chair
College Annual Report	College of Engineering, Majmaah University, Al-Majmaah, KSA	Member

## CONSULTANCIES

- Bearing Capacity Determination of different soil of problematic Sites
- Culvert Structural Design Vetting
- Structural Design and Drawings Vetting of Multi-storied Buildings
- Vetting of Structural Design of Railway Station Extension
- Design of boundary Wall along Railway Track, etc.....

## EDITORIAL BOARD MEMBER/ REVIEWER OF REPUTED JOURNALS

Journal Name	Duration	Position
Journal of Engineering and Applied Sciences, Majmaah University, KSA	2015-2017	Member Editorial Board
Springer Journals	2014-Till Date	Reviewer
Elsevier Journals	2014-Till Date	Reviewer

## PUBLICATIONS

### BOOKS

Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/ISBN Number
Smart Cities - Opportunities and Challenges	Springer Nature	2019	ISSN: 2366-2557 ISSN: 2366-2565 (e) ISBN: 978-981-15-2544-5 ISBN: 978-981-15-2545-2 (e)
Behaviour of Rockfill Materials	LAP Lambert Academic	2010	978-3-8443-0011-6
Constitutive Modeling of Rockfill Materials	LAP Lambert Academic	2010	978-3-8443-0643-9

### JOURNALS:

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year
Amin, ST, Abbas, SM & Usmani, A	Static and seismic assessment of an existing tunnel due to a new tunnel placed vertically below at different spacing	International Research Journal of Engineering and Technology (IRJET)	Vol. 11(2)	2201-2208	2024
Rehman, M, Abbas, SM & Usmani, A	Response of pile foundation due to a new tunnel in the vicinity at different vertical position	Bulletin for Technology and History Journal	Vol. 23(9)	324-344	2023
Rehman, M, Abbas, SM & Usmani, A	Analysis of tunnel-pile interaction and predictive modelling of pile foundation response to tunnel excavation at various horizontal positions using PLAXIS	International Journal of Computational Materials Science and Surface Engineering (IJCMSSE)	Vol. 12(1)	62-80	2024
Rehman, M, Abbas, SM & Usmani, A	Study of Pile behavior during tunnel construction in the vicinity with changing tunnel and pile diameter	Journal of Rock Mechanics and Tunnelling Technology (JRMTT)	Vol. 30 (2)	83-99	2024
Hasan, S & Abbas, SM	Post-Earthquake Serviceability Assessment Using the Convolutional Neural Networks and Deep Neural Networks	International Journal of Scientific Research in Engineering and Management (IJSREM)	Vol. 08, no. 02		2024, DOI: 10.55041/IJSREM28507 (ISSN: 2582 3930)
Akil Ahmed, Sumaiya Khanam, Syed Mohammad Abbas	Soil Structure Interaction Considering Near-field Earthquake - A Review	Journal of Emerging Technologies and Innovative Research	Vol. 6, Issue 6	242-248	2019

Sumaiya Khanam, Sadiqa Abbas and <b>S.M. Abbas</b>	Environmental Risk Mitigation Using Optimal Mix for Road Embankments of Marble Dust and WTP Sludge with Soil	MedCrave Online Journal of Civil Engineering	Vol. 2, Issue 5	1-13	March 2017
Sabahat A. Khan and <b>Syed M. Abbas</b>	Seismic Stability Analysis of Highway Embankment by Different Ground Improvement Techniques	International Journal of Innovative Research in Advanced Engineering	Vol. 1, Issue 10	54-64	Nov. 2014
Gaurav Rastogi, Khalid Moin & <b>S.M. Abbas</b>	Nonlinear response of a 1:4 scale model of 3-storey Reinforced Concrete frame with partially masonry infill walls	International Journal of Innovative Research in Science, Engineering and Technology	Vol. 3, Issue 7	14768-14775	July 2014
Raju Sarkar, <b>S. M. Abbas</b> & J. T. Shahu	A Comparative study of Geotechnical behaviour of Lime Stabilized Pond Ashes for Delhi Region	Int. J. GEOMATE	3(1), serial5	273-279	2012
<b>Syed Mohd Abbas</b>	Particle Breakage in Rockfill Materials	Int. J. Advances in Science Technology	4(2)	66-84	2012
Raju Sarkar, <b>S. M. Abbas</b> & J. T. Shahu	Geotechnical Behaviour of Randomly Oriented Fiber Reinforced Pond Ashes available in Delhi Region	Int. J. Earth Sciences & Eng.	5(1)	44-50	2012
Raju Sarkar, <b>S. M. Abbas</b> & J. T. Shahu	Study of Geotechnical behaviour of Pond Ash mixed with Marble Dust	Int. J. Advanced Technology in Civil Eng.	1(2)	99-106	2012
<b>Syed Mohd Abbas</b>	Uncompacted Void Content versus maximum Particle Size for Rockfill Materials	Int. J. Engineering Sciences & Technology	4(1)	193-199	2012
Raju Sarkar, <b>S. M. Abbas</b> & J. T. Shahu	Geotechnical characterization of pond ash available in National Capital Region-Delhi	Int. J. Earth Sciences & Technology	04(6) SPL	138-142	2011
Varadarajan, A., K.G. Sharma, <b>S.M. Abbas</b> and A.K. Dhawan	Constitutive Model for Rockfill Materials and Determination of Material Constants	<i>Int. J. of Geomechanics, ASCE</i>	6(4)	226-237	2006
Varadarajan, A., K.G. Sharma, <b>S.M. Abbas</b> and A.K. Dhawan	The Role of Nature of Particles on the Behaviour of Rockfill Materials	<i>J. of Soils and Foundation, Japanese Geotechnical Society</i>	46(5)	569-584	2006

### CONFERENCES/WORKSHOPS/SYMPOSIA PROCEEDINGS:

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page numbers	Conference Theme	Venue	Year
Amin, ST, <b>Abbas, SM</b> & Usmani, A	Effect of construction of a new tunnel nearby an existing tunnel: static and seismic analysis for varying horizontal spacing	INDOROCK 2023: Ninth Indian Rock Conference			CSMRS, Hauz Khas, New Delhi	Nov. 16-18, 2023
Amin, ST, <b>Abbas, SM</b> & Usmani, A	Static and seismic effect of constructing a new tunnel vertically above an existing tunnel: A comparative study	Global Journal in Civil Engineering. Zenodo		doi: 10.5281/zenodo.10447189		2023
Sneha, S, <b>Abbas, SM</b> & Sahu, AK	Effect of nearby excavation on diaphragm wall under Static condition	International Conference on Technologies and Innovations for Sustainable Development (TISD-2023)			MNNIT Allahabad, Prayagraj	Oct. 27-29, 2023
Suruchi Sneha, Sadiqa Abbas, Arun Prasad, <b>Syed Mohammad Abbas</b>	Geotechnical Characterization of Randomly Oriented Fiber Reinforced Flyash	Smart Cities - Opportunities and Challenges		Smart Cities - Opportunities and Challenges	Delhi	2019
Aasia Mukhtar, Suruchi Sneha, Sadiqa Abbas, <b>S. M. Abbas</b>	Durability of Soil Blended with Flyash	Smart Cities - Opportunities and Challenges		Smart Cities - Opportunities and Challenges	Delhi	2019
Ankush Chaudhary, Rahul Siddarth, A.K.Sahu, and <b>S.M.Abbas</b>	A Study on Modelled Granular Column of Various Diameters in Soils	Smart Cities - Opportunities and Challenges		Smart Cities - Opportunities and Challenges	Delhi	2019

Sumee Tabassum, <b>S.M. Abbas</b> , Altaf Usmani	Challenges of Shallow Tunnelling in Soft Soils: A Review	Smart Cities - Opportunities and Challenges		Smart Cities - Opportunities and Challenges	Delhi	2019
Musabur Rehman, and <b>S.M. Abbas</b>	Seismic Analysis of Pile Foundation Passing through Liquefiable Soil	Smart Cities - Opportunities and Challenges		Smart Cities - Opportunities and Challenges	Delhi	2019
Musabur Rehman, <b>S.M. Abbas</b> , Altaf Usmani	Analysis of tunnels under blast and seismic loading: A Review	Smart Cities - Opportunities and Challenges		Smart Cities - Opportunities and Challenges	Delhi	2019
Musabur Rehman, Sumee Tabassum Amin and <b>S. M. Abbas</b>	A review of Seismic Analysis of Pile Foundation Passing through Liquefiable Soil	Seismic Hazards and Mitigation of Structures		National Seminar on Seismic Hazards and Mitigation of Structures	Delhi	2017
Sumee Tabassum Amin, Musabur Rehman, and <b>S.M. Abbas</b>	A review of Seismic Analysis of Underground Rectangular Tunnels	Seismic Hazards and Mitigation of Structures		National Seminar on Seismic Hazards and Mitigation of Structures	Delhi	2017
Raju Sarkar, <b>S. M. Abbas</b> & J. T. Shahu	Study of Geotechnical Behaviour of Pond Ash when mixed with Bentonite	Geotec Hanoi			Vietnam	2011
Raju Sarkar, <b>S. M. Abbas</b> and J. T. Shahu,	Compaction Characterization of Pond Ash	10 <sup>th</sup> Int. Symposium on Environmental Geo-technology and Sustainable Development		Environ-mental Geo-technology Sustainable Development	Bochum, Germany	2009
Manauwer Imam, Iqbal Umar Khan, Rajender Singh and <b>S. M. Abbas</b>	Soil Dynamics: Field and Laboratory Testing	National Conference, GSEE'07	283-294	Geotechnical and Structural Aspects of Earthquake Engineering	New Delhi	2007
Shagufta Anjum, Basma Rais and <b>S. M. Abbas</b>	Seismic Hazards and its Mitigation	National Conference, GSEE'07	217-226	Geotechnical and Structural Aspects of Earthquake Engineering	New Delhi	2007
Mohd Imran, Najmuddin Ansari, Md. Adeel Ahmed and <b>S. M. Abbas</b>	Seismic Retrofitting in Bridges in Construction and Repairing	National Conference, GSEE'07	283-294	Geotechnical and Structural Aspects of Earthquake Engineering	New Delhi	2007
<b>S. M. Abbas</b> , K.G. Sharma and A. Varadarajan	Prediction of Shear Strength Parameter of Alluvial and Quarried Rockfill Materials	9th Symposium on Numerical Models in Geomechanics- NUMOG IX	195-201	Numerical Models in Geomechanics	Ottawa, Canada	2004
A. Varadarajan, K.G. Sharma and <b>S.M. Abbas</b>	Effect of Characteristics of Particles on the Shearing Resistance of Rockfill Materials	Indian Geotechnical Conference			Warrangal	2004
<b>S.M. Abbas</b> , A. Varadarajan, and K.G. Sharma	Prediction of Shear Strength Parameter of Prototype Rockfill Material	Indian Geotechnical Conference	5-8		Roorkee	2003
A. Varadarajan, K.G. Sharma, K. Venkatachalam, and <b>S.M. Abbas</b>	Constitutive Modelling of Rockfill Materials from Tehri Dam, Uttaranchal		592-595		Allahabad	2002
H. Abbas and <b>S.M. Abbas</b>	Local Damage of RC Target by Tornado- Missiles	National Seminar on Wind Eng.			Kharagpur	1999
Sadiqa Abbas, <b>S.M. Abbas</b> and Asif Husain	Environmental Effects of Acid Rain- A Review	Intern. Conf. on Environmental Challenges for the New Millenium			New Delhi	1999
Shamshad Ahmad, <b>S.M. Abbas</b> , Asif Husain	Environmental Problems due to Flyash and its Use as Building Material	Int. Conf. on New Challenges for Civil Engineers of Developing Countries in the 21st Century			New Delhi	1996
Shamshad Ahmad and <b>S.M. Abbas</b>	Environmental Risk Assessment	Int. Conf. on New Challenges for Civil Engineers of Developing Countries in the 21st Century			New Delhi	1996
A. Umar, H. Abbas, A. Qadeer and <b>S.M. Abbas</b>	Error Modelling in Finite Element Analysis of Shell Structures	National Seminar on High Rise Structures			Allahabad	1995



**BOOK CHAPTERS:**

Author(s)	Title	Book	Volume (No.)	Page numbers	Year
Sneha, S, <b>Abbas, SM</b> & Sahu AK	Numerical analysis of diaphragm wall supporting deep excavation	Recent Advances in Civil Engineering, eds J Thomas & S Vishnudas, CRC Press, London	Chapter 18 DOI-10.1201/9781032657271-18	115-121	2024
Arfin, MA, <b>Abbas, SM</b>	Landslide Mitigation Using Different Slope Stability Techniques - A Review	Landslide Risk Assessment and Mitigation in India. LRAMI 2022, eds Sajjad, H., et al	Springer Proceedings in Earth and Environmental Sciences, Singapore	255-266	2024, <a href="https://doi.org/10.1007/978-981-97-5485-4_17">https://doi.org/10.1007/978-981-97-5485-4_17</a>
Rehman, Musabur; <b>Abbas, SM;</b>	Seismic Analysis of Pile Foundation Passing Through Liquefiable Soil	Smart Cities—Opportunities and Challenges	58	539-553	2020
Mukhtar, Aasia; Sneha, Suruchi; Abbas, Sadiqa; <b>Abbas, SM</b>	Durability of Soil Blended with Flyash	Smart Cities—Opportunities and Challenges	58	831-843	2020
Chaudhary, Ankush; Siddarth, Rahul; Sahu, AK; <b>Abbas, SM</b>	A Study on Modelled Granular Column of Various Diameters in Soils	Smart Cities—Opportunities and Challenges	58	669-681	2020
Amin, Sumee Tabassum; <b>Abbas, SM;</b> Usmani, Altaf;	Challenges of Shallow Tunnelling in Soft Soils—A Review	Smart Cities—Opportunities and Challenges: Select Proceedings of ICSC 2019	58	487-501	2020

New Delhi

**Prof. (Dr.) S. M. Abbas**  
*April 08, 2025*