## Resume

# Abhinav Sonaji Mane

# PhD IIT Bombay, Innovation HOD, Product development and UG research



# **Profile summary:**

- Head, Department of Innovation CSMSS, CSCOE, Aurangabad.
- PhD in Geotechnical Engineering, IIT Bombay, Mumbai, India.
- **♦** 11 International <u>research publications</u>.
- 30+ professional consulting services provided (Worth 65 lakhs).
- ◆ 13+ International papers are to be published in 2019.
- 3 patents are in pipeline to be filed

Full Name	Mane Abhinav Sor	Mane Abhinav Sonaji		
Name of Post	Associate Professo	r		
Subject	Geotechnical Engi	neering		
Specialization	Geotechnical Engi	neering		
Caste Category Appointed From	Open			
UG/ PG Teacher	UG	UG		
Address & Contact Details	Maharashtra, Indi Mobile No.: 94202	47, Parvati co. op. Hsg. Soc., Behind Mayur Park, Harsool. Aurangabad,. Maharashtra, India Mobile No.: 9420261590 Email: abhinavmane@gmail.com		
Gender	М	Date of Birth :		
Mother tongue	Marathi	Knowledge of Marathi: Proficient Specially Abled: No		

:: Caste Category of Candidate

**Caste**: Maratha

## **Educational Qualification**

Name of Exam	Board/University	Passing Mon- Year	Stream/Subject	Obtained/ Total Marks	% or Grade Point
PhD	IIT Bombay	2018	Geotechnical Engineering (CIVIL)	-	7.2
M.Tech.	MNNIT Allahabad	2008	Geotechnical Engineering	-	8.2
B.E.	Dr. BAMU	2005	Civil Engineering	66.93	-
HSC	Maharashtra Board	2001	Phy, Chem, Bio, Math	76.67	-
SSC	Maharashtra Board	1999	All	79.60	-

# **Work Experience**

Name of Employer	Type of Service	Designation	Nature of Post	From-To	Approval date
CSMSS Aurangabad	Looking after the research and development activities in all branches, working on conceptual engg models, patents, technical competitions, research funding, incubation, startups, consultancy for geotechnical field works and academic teaching to civil engineering students	Associate professor/ HOD Innovation	Full time	09/04/2016 to Till Date	22/02/2017
DIEMS Aurangabad	Teaching to civil engineering students, Training and placement coordinator, geotechnical consultant.	Assistant professor		02/02/2015 to 02/02/2016	-
SECON Pvt. Ltd, Bangalore/NSES Libya	Geotechnical engineering consultant, project manager	Geotechnical Engineer/ Project manager	Full time	14/07/2008 to 30/11/2009	14/07/2008
Strata geosystem India Pvt. Ltd.	Geotechnical engineer	Manager (Design)	Full time	07/07/2014 to 30/01/2015	07/07/2014
Strata geosystem India Pvt. Ltd.	Design philosophy trainer	Trainer for engineers	Scheduled invitations	30/01/2015 to Till date	-

## **Research Papers/ Conference Proceedings**

Type of Journal	Title with Page No.	Journal Details	Published year	Sole/ Co- Author	Peer Review/ Impact Factor	API Score
Scholarly Research Article	Reinforced Soil Walls with Compressible	Geotechnical special publication	2012	Mane A. S. / Viswanadham B V S	0.22	21

# Paper Presented in Conference/Workshop/Symposium

Title of Paper	Type of Conf./Workshop /Symposium	Details of Conf./Workshop/Symposiu m	Organizer Details	Proceeding s Published?	Sole/ Co-author	API Scor e
Centrifuge Modeling of Wrap- Around Geogrid Reinforced Soil Walls	National	IGC-2010 Geotrendz, Conference Helt at IIT Bombay 2010	IIT Bombay	Yes	Mane A. S. / Viswanadham B V S	3
Shear strength enhancement of soft soils below GRSW-Case study	National	5IYGEC , Conference held at IGC Baroda	IGC Baroda	Yes	Mane A S/ Mukesh Satav/ S P Bagli	3
Performance enhancement of Geogrid Reinforced Soil Walls with Geofoam Inclusion	International	International Conference on Soil and Environment, Conference held at IISc Bangalore	IISc Bangalore	Yes	Mane A S/ Seema Gawali/ P. Gore	5
Earth Pressure Reduction on Buried Pipelines Using Geofoam	International	EuroGeo-2016, Conference held at Ljubljana, Slovenia	EuroGeo- 2016, IGS	Yes	Mane A S/Shubham Shete/ Ankush Bhuse	5
Effect of Geofoam inclusion on Behavior of Geogrid Reinforced Soil Walls	International	International Geotechnical Engineering Conference on Sustainability in Geotechnical Engineering Practices and Related Urban Issues"	IIT Bombay	Yes	Mane A S/ Seema Gawali/ P. Gore	5
Studies on Deformation Behavior of Geogrid Reinforced Soil Walls	International	EuroGeo-2016, Conference held at Ljubljana, Slovenia	EuroGeo- 2016, IGS	Yes	Mane A S/ Seema Gawali/ P. Gore/ S Shete/ A. Bhuse	5

Effect of Geofoam Inclusion on Deformation Behavior of Buried Pipelines in cohesive soils	International	GeoMEast 2017, Conference held at Sharm El-Sheikh, Egypt	GeoMEast- 2017, Internation al geotechnic al society	Yes	Mane A S/Shubham Shete/ Ankush Bhuse	5
State of art of practice in geosynthetic extension tests	International	Conference held at SVERI pandharpur.	SVERI Pandharpur	Yes	Mane A S/D Bahirat/ G. Lalchhote	5
State of art or research in gravity filters	International	Conference held at SVERI pandharpur.	SVERI Pandharpur	Yes	Mane A S/K. Karvande/ Abhayraj lodha/S Patel	5
Buried Pipelines Deformation Behavior in Different Soils Using Geofoam	International	Conference held at SVERI pandharpur.	SVERI Pandharpur	Yes	Mane A S/Shubham Shete/ Ankush Bhuse	5
Deformation Behavior of Soil with Geocell using Image Analysis Techniques	International	Conference held at Department of Computer Science and IT Dr. BAMU, Aurangabad	Dr. BAMU, Aurangaba d	Submitted for Acceptance	Mane A. S./ Praful Gaikwad/ Shubham Shete	-
Study on Deformation Behavior of Sub-soil With Inclusion of Geotextiles using Image analysis	International	Conference held at Department of Computer Science and IT Dr. BAMU, Aurangabad	Dr. BAMU, Aurangaba d	Submitted for Acceptance	Mane A. S./ Akash Shirsat/ Ankush Bhuse	-
Study on Bearing Capacity Improvement of Subsoil Using Waste Plastic Strips through Image analysis	International	Conference held at Department of Computer Science and IT Dr. BAMU, Aurangabad	Dr. BAMU, Aurangaba d	Submitted for Acceptance	Mane A. S./ Praful Gaikwad/ Ganesh Sardar	-

**Details of Research Schemes/ Projects/ Consultancies undertake** 

Project Name	Funding	Fund	Commencement	Completion	Worked as	API
	Agency	Mobilized	Date	Date		Score
Geotechnical investigation for	Police Housing	10 Lakhs	2 July, 2017	26 Aug,	Geotechnica	10
Police Housing Society,	Society			2017	I consultant	
Aurangabad						
Simar Pride Venture LLP's	Pride Ventures		45.5		Geotechnica	
Muiltistorey apartment at	India Pvt Ltd	1 Lakhs	10 October,	22 October,	I consultant	10
Pannalal Nagar			2017	2017		
Rehabilitation and Up-gradation	M/s Designilla				Geotechnica	
of Jalgaon Jamod-Nandura		2.5 Lakhs	11 May, 2018	5 June, 2018	I consultant	10
National Highway						
Non-destructive testing (Rebound	Bhuvi	25 K	-	10 July,2018	Geotechnica	10
hammer test) for Gharkul site.	Landmark LLP				I consultant	
Geo Technical Investigation for	Indian Oil				Geotechnica	
Construction of LPG Bottling	Corporation	1.95	5 April, 2018	2 May, 2018	I consultant	10
Plant at Kharagpur (West Bengal)	Limited	Lakhs				
Plate load tests on geocell	Strata				Geotechnica	
reinforced and unreinforced	Geosystems	83 K	15 June, 2018	29 June,	I consultant	10
ground surface.	(India) Pvt. Ltd.			2018		
Constriction of PSBA School site,	Sanjivani			40.4	Geotechnica	
Chikhalthana, Aurangabad.	Bhosekar	50 K	11 August, 2018	19 August,	I consultant	10
	Madam.		,	2018		
Dy Chief Engineer (civil) CCC					Geotechnica	
MSPGCL Parli Vaijnath work for	Faiz	6 Lakhs	30 August, 2018	02	I consultant	10
Solar Agriculture feeder project.	Enterprises		,	November,		
	·			2018		
Construction of multi-	M/s Jayanti			13 August,	Geotechnica	
storey building at Kolar city	Super	35 K	1 August, 2018	2018	l consultant	10
for Amrut Scheme,	Construction			2010		

Karnataka						
Rehabilitation and upgradation						
of existing carriage way to Two	Saakar Infra	10.5	7 August, 2018	22	Geotechnica	10
Lanes with Paved Shoulder	Nirman Pvt.	Lakhs	7 August, 2016	September,	I consultant	10
Standards in	-	Lakiis		2018	i consultant	
	Ltd.					
Chikhli (at Hatni) to Dhad						
Non-destructive test (Rebound	P D Architects.	65 K	-	8 October,	Geotechnica	10
hammer test) at Hingoli site.				2018	l consultant	
Construction of multi-storey	Iconica Project	89 K	3 November,	13	Geotechnica	10
building at Vishakhapattanam			2018	November,	I consultant	
				2018		
Earth Resistivity Test / VWILLP /	Vish Wind	45 K	27 November,	30	Geotechnica	10
Yelavat / 33 / 400 KV Toramba	Infrastrukture		2018	November,	l consultant	
Pooling Substation / 001 / 18-19.	LLP		2020	2018		
Field density by core cutter				14	Geotechnica	
method for D'mart site.	ARJ	12.4				10
method for D mart site.	Construction.	13 K	-	September,	I consultant	10
				2018		
Field density by Core Cutter	Concept					
Method and Laboratory Standard	Ventures	7.5 K	-	13	Geotechnica	10
proctor test For G-168, Sanjeev	Private Limited			November,	I consultant	
Auto,				2018		
Dahegaon.						
Rail over Rail bridge no.3	Indwell				Geotechnica	
Between Raigarh-Jamgaon.	Construction	3.47	28 November,	25	l consultant	10
- con con narger con garant	Pvt. Ltd.	Lakhs	2018	December,		
		Lattiis		2018		
Green field per-mix plant at	Archetype	4.45 lakhs	31 October,	12	Geotechnica	10
Tather village Kota Dist.			2018	November,	I consultant	
Rajasthan				2018		
Geotechnical Investigation of	Central				Geotechnica	
warehouse at Gangapur,	India	89 K	28 November,	03 January,	I consultant	10
Aurangabad.		65 K	2018	2019	Teorisaitant	10
Aurangabau.	Logestics					
	Pvt.					
	Ltd.				0 1 1 1	
Geotechnical Investigation for	Motiwala			13 August,	Geotechnica	
multistory building at Akashwani,	Square	1 Lakh	03 July, 2018	2018	l consultant	10
Aurangabad.				2010		
Concrete mix design for the site	Srinivasa Infra				Geotechnica	
plot no.2, MIDC area, Chalisgaon.	Buildcon Pvt.	12 K	-	12 July, 2018	I consultant	10
	Pvt.					
Geotechnical Investigation for	Parikh Kashyap	67 K	24 November,	10	Geotechnica	10
Airport Colony, Aurangabad.	' '		2018	December,	l consultant	
· ··· p · · · · · · · · · · · · · · · ·			2010	2018		
Piling work for cricket stadium	Shreehari			2010	Piling	
_		4.25	11 October,	02	_	10
light poles	Associates	4.35	2018	November,	designer and	10
	Pvt.	Lakhs		2018	contractor	
	Ltd.					
	Bharat					
Lab and field soil testing for waluj	Petroleum	50 K	15 December,	14 January,	Geotechnica	10
site.	Corporate		2018	2019	I consultant	
	Limited.					
Lab and field soil testing for	Bhargav	13 K	20 February,	25	Geotechnica	10
Industrial Project.	Construction		2019	February,20	l consultant	
				19		
Piling work for Solar project at	Icon	3.70	13 Fahruary	04 March,	Piling	10
			13 February,		_	10
Badnera, Akola bypass, Amravati	Engineering	Lakhs	2019	2019	Contractor	
	Work				0	
Geotechnical Investigation for	Crompton				Geotechnica	
Industrial project at Kundaim,	Greaves	89 K	07 February,	18 February,	I consultant	10
					•	i
Goa	Consumer Electricals Ltd		2019	2019		

1MW Solar Power Plant Airport Authority of India, at Rajahmundry Airport, Andhra	VIVETTO SYSTEMS	2.10	23 January, 2019	23 February, 2019	Geotechnica I consultant	10
Pradesh.		Lakhs				
Plie load test up to 210 tonne capacity by using Truss, Nagpur	Bhamare Infrastructure Pvt Ltd	2.32 lack	15 April, 2019	30 May, 2019	Geotechnica I consultant	10
Soil Investigation Survey, Topographical Survey at Pithampur, Indore	PAR Formulation Pvt.Ltd	28.59 lack	06 April, 2019	25 April, 2019	Geotechnica I consultant	10
Geotechnical Investigation for TATA Hampi road and Tumkuru road at Karnataka.	Efkon India Pvt.Ltd	4.69 lack	08 May, 2019	23 May, 2019	Geotechnica I consultant	10
Piling work at Kharagpur, West Bengal	Gubba Cold Infra Consulting LLP	8.23 lack	10 July, 2019	7 August, 2019	Piling Contractor	10
Geotechnical Investigation of IOCL plant at Atchutapuram, Vishakhapattanam	Prashant Projects Ltd	3.56 lack	11 May, 2019	27 May, 2019	Geotechnica I consultant	10
Piling work and testing of piles for Solar plant at Manwat, Parbhani	Oriano Clean Energy Pvt Ltd	3.8 lack	8 January, 2019	25 January, 2019	Geotechnica I consultant and Pile Contractor	10
Geotechnical Investigation Improvement of NH-53 passing through Jalgaon city to four lane at Jalgaon	M/S MAV Associates	1.08 lack	12 June, 2019	22 June, 2019	Geotechnica I consultant	10
Geotechnical Investigation for Industrial Building at Waluj, Aurangabad	Deshpande Associates	1.1 lack	29 May, 2019	5 June,2019	Geotechnica I consultant	10
Geotechnical Investigation for Podar International School at Amravati, AP.	Podar International School	1.97 lack	05 July, 2019	15 July, 2019	Geotechnica I consultant	10
Geotechnical Investigation for Sub-station at Chikhalthana	Bajaj Electricals Itd	1.35 lack	02 August, 2019	06 August, 2019	Geotechnica I consultant	10

## CATEGORY I: TEACHING, LEARNING & EVALUATION RELATED ACTIVITIES

# 1. Details of Lectures, Seminars, Tutorials, Practical's, Contact Hrs

Course/Paper	UG/ PG Level	Teaching Mode	Hours per week allotted	% of classes taken
Building planning and design	UG	Theory Classroom	4	100
Fluid Mechanics I	UG	Theory Classroom	4	100
Geotechnical Engineering	UG	Theory Classroom	4	100
Foundation Engineering	UG	Theory Classroom	4	100
Geotechnical Engineering	UG	Practical's	2	100

## CATEGORY II: CO-CURRICULAR, EXTENSION & PROFESSIONAL DEVELOPMENT RELATED ACTIVITIES

1. Student related co-curricular, extension & field based activities (such as extension work through NSS/NCC & other channels, cultural activities, subject related events, advisement & counselling)	-
,	Playing a role of HOD
department & institution through participation in academic	Innovation. The work involves the management and evaluation of
& administrative committees & responsibilities	final year projects of the institute students in all branches.

3. Professional Development Activities (such as participation in seminars, conferences, short term, training courses, talks, lectures, membership of associations, dissemination & general articles, not covered above)	Working as a trainer to a firm named Strata Geosystems India Pvt Ltd as a trainer to engineers on design of GRSW's.
Training Courses, Teaching, Learning Evaluation Technology Programmes, Faculty Development Programmes (Not less than one week duration)	Attended GIAN course on Constitutive Modelling in Practical Geotechnical Analysis at IIT Bombay, June 06, 2016 to June 16, 2016.
Invited lectures or presentations for conferences/symposia	Invited for expert talk on Research attitude, problem formation and methodology for civil engineers. Invited for lecture talk in faculty development program on E waste management.
Particulars of current research work at personal level	Working as project guide for 10 student groups (40 students) from Mechanical, Civil, Electronics, Electrical and Computer Science on different areas like geotechnical engg, manufacturing, product development, application development, sensor technology etc.
Patents & IPR Details:	In process

#### **Notable achievements:**

- 1. Throughout Scholarship holder.
- 2. Winner of state level Avishkar event 2016.
- 3. Ranked 10th in Hackathon event 2017 at National level.
- 4. Ranked 4th in STAND INDIA competition at National level.
- 5. Passed Elementary and Intermediate drawing grade examination conducted by government of Maharashtra.
- 6. Completed "Yog Pravesh" and "Yog Parichay" cources arranged by Yog vidyadham with 1st Rank.
- 7. Consistently played cricket in my academic years and represented my team at college level for various tournaments.
- 8. Got awarded for third position in PG sports IIT Bombay in cricket tournament.
- 9. Provided guidelines for audio-video and visual teaching, learning about Canal constructions (earth work) to Water Resource Department Government of Maharashtra which Coordination of Superintendent Engineer Mr. Ilyas Chisti.

#### Innovation:

- 1. Working on conversion of existing motorcycle into a Hybrid motorcycle.
- 2. Working on conversion of existing motorcycle into an Electric motorcycle...
- 3. Working on producing mechanical power using heat energy.
- 4. Working on developing data acquisition units for civil engineering measurements.
- 5. Working on development of Finite element codes to solve geotechnical engg problems.
- 6. Idealized automated institute using advanced technology and minimum cost.
- 7. A few patentable products/procedures are under development as below;
  - a. Earth drilling machine
  - b. Auger piling machine
  - c. Cost effective fully automated mechanical roti maker
  - d. Food waste digester
  - e. Automations in the geotechnical testing equipments
  - f. Suspensions and their effective arrangements
  - g. Self cooling windows
  - h. Modelling with high density materials- development of scaling considerations

- i. Design of the playing surfaces and cricket pitches using plastic waste/ geocells/ geogrids
- j. Design of a reinforced cricket bat for the high impact batting in commercial cricket
- k. Design of a knocker (Automated) for tampering of a new wood of the cricket bat.

## **References:**

Sr. No.	Name of the person	Designation &  Name of the Company	Mobile No.	Email Address
1.	Jyoti Kokate	SAP Consultant, Atos India ltd.	7798934111	Jyoti.kokate09@gmail.com

I Abhinav Sonaji Mane, hereby undertake that the information provided above is true and correct.

**Date:** 01/05/2021 **Name & Signature**