Detailed Resume For	**Subramanian Ramanathan**	
Education	Ph.D in Geotechnical Engineering (Indian Institute of Technology Madras, 2018) M.Tech in Geotech (Anna University, 2009) B.E in Civil Engineering (Anna University, 2007)	
PhD Thesis Dissertation	**BEHAVIOUR OF BATTER PILE GROUPS UNDER LATERAL STATIC AND DYNAMIC LOADING IN CLAY** ▪ Experimental studies - conducted lateral dynamic load tests on model vertical and batter pile groups in a simulated elastic half space. Obtained extensive hands-on experience in the instrumentation by making use of the sensors such as LVDT, loadcells, accelerometers, strain gauges and equipment's such as amplifier, dynamic exciter, data acquisition system. ▪ Numerical studies - carried out 3D finite element studies on model piles installed in clay bed using ABAQUS. Developed new soil pile models with optimized element sizes and use of parallel computing techniques and validated with the experimental results.	
Member of Professional Bodies (Current)	▪ Life Member of Indian Geotechnical Society (IGS) New Delhi (LM-2879), Deep Foundations Institute (DFI) Member of India and USA	
Certifications	▪ "Advanced" in PDA proficiency test conducted by PDI and PDCA, Cleveland, USA in October 2019	
Expertise in specialized field tests and interpretation	Multichannel Analysis of Surface Waves (MASW), Seismic Cross hole test, seismic down hole test, seismic refraction, Block Vibration test, Dynamic Pile Testing – vertical and lateral, Electrical Resistivity Tomography, Pressuremeter	
Computer Knowledge	ABAQUS, Shake 2000, Deepsoil, SeisImager, ParkSeis, Surfseis, WinMASW, DynaN, DynaPile, Plaxis, MIDAS, LPile, Group, CAPWAP	
Professional Associations	April 2022 to Present	NEXGEN INTEGRATED GEOSOLUTIONS PVT LTD – MD & CEO; Principal Engineer
	December 2021 to May 2022	Independent Consultant
	June 2021 to December 2021	Gaia Geoscience India Pvt. Ltd.; Director & Principal Engineer
	2016 to April 2021	Sarathy Geotech & Engineering Services PVT LTD. (SGES); Designation – Principal Engineer (I have acquired and executed 80% of projects through writing and winning own technical proposals)
	2015 – 2016	National Institute of Ocean Technology, India, May 2015 – April 2016; Designation – Project Scientist II
	2009 to 2015	Indian Institute of Technology Chennai (Worked in over 40 consulting projects of Prof.Boominathan)

BD Experience in NexGen	
2022 to 2025 in NexGen	Have written winnable techno commercial proposals convincing multiple stakeholders with focus on geophysical, integrated site characterization, geoconsulting in the Indian market. Proposal written for major companies like L&T's different Business Units, Lloyds, TTK, Afcons, Vibrant Energy etc.
	Dissected the business verticals into Oil & Gas, Wind (offshore and onshore), Ports, Real Estates, Infrastructure, Dams, Industry and reached to some of the top-level executives and decision makers in India, Middle East and SEA through awareness and content emails & selective personal meetings and got several of their attention.
Research Experience in NIOT	
2015 to 2016	Optimization of Monopile foundations for Offshore Wind Turbines through analytical approach and Finite Element Simulations, developing scaling similitude for carrying out experiments on model monopile foundations

LIST OF PROJECT EXPERIENCE (Selective Projects)

Project Year/Client	Project	Roles/Responsibilities
2025/ Aries Marine Global UAE	Support services to ARIES marine geotechnical/geophysical investigations scope of works at UAE offshore oil fields	Business Development, Project Coordination and backend support to the frontend NEXGEN Team in carrying out offshore (SBE, MBE, SSS, SBP, Magnetometer) and onshore geophysical and geotechnical investigations. Work carried out by Mubarak Multicate Geotechnical Vessel and Al Naheem Geophysical Vessel at CFP-CTP-MUB routes
2025/Tata Projects Limited – Chennai Metro Rail Limited	2D Geophysical Site Characterization by MASW method at the ongoing Metro Construction - Perambur - UG01 TPL site in the aspect of understanding the Grouting Efficacy at the identified treated area	Project Management and Reporting – carried out 2D MASW at selective locations to identify presence of cavities and determine the efficacy of grouting over the treated soil subsided zone (caused by the operation of underground TBM) and provided recommendations
2024/ L&T Heavy Civil – Chennai Metro Rail Limited	Determining Pile Termination depth inside KMC hospital along tunnel alignment of SCO KMC through Parallel Seismic and related tests	Project Management and Reporting – carried out parallel seismic tests on 2 piles and estimated pile termination depth and confirmed the socketing substratum layer through MASW method
2024/TTK Healthcare Ltd	Comprehensive Site Characterization and foundation recommendation through Geophysical, Geotechnical, Geoconsulting	Business development, Project management and reporting – Performed integrated Geophysical and Geotechnical studies with consulting
2024/L&T Heavy Civil Infrastructure	Establishing Field Dry Density Through MASW Method at Mumbai Coastal Road Package-1	Project management, lead - execution and reporting, carried out MASW Geophysical test and developed correlations to establish compaction efficacy
2024/L&T Energy Hydrocarbons	Consulting work for IOCL MAH Panipat Existing Pond lining and Flare Island work – RHCU unit	Lead Strategist and proposal maker – developed strategic proposal to convert existing evaporation pond to storm water reservoir with zero waste discharge

2024/TPI Composites India Pvt. Ltd.	Towards addressing Floor Distress in the TPI Facility, Vallam	Principal consultant (Lead forensic investigator) – carried out Geophysical and Geotechnical studies to identify the root cause of distress on the floor and wall of the plant, mapped the problematic substrata and recommended mitigation measures
2023/L&T	Seismic Site Characterization of RWR1 & 2 – Dholpur,Rajasthan through Masw Survey	Executed MASW and characterised the site for rippability and quantifying the earthwork for cut and fill (excavatability**)**
2023/Vibrant Energy Holdings India Pvt. Ltd.	Verification of WTG Design Basis with respect to Geotechnical Assessment and Further Recommendations at Koppal, Karnataka	Performed site characterization integrating geophysical (seismic, GPR) and geotechnical data, verified the designs in terms of geotechnical aspects such as bearing capacity, overturning, settlement, rotational stiffness, made recommendations for ground improvement
2023/IIT Chennai	Estimation of Rotational Stiffness and Seismic Hazard Assessment of a wind turbine site at Latur, Maharashtra	Performed site characterization integrating geophysical (seismic, GPR) and geotechnical data, rotational stiffness estimation, Seismic hazard assessment of site, Ground Response Analysis, conceptualization, structuring, writing, reviewing and preparation of report for 15 Wind Turbines
2022/AECOM	Great Male Connectivity, Maldives	Geotechnical Consultant – performed site characterization, integrating advanced geophysical (PS logging, Acoustic Televiewer) and geotechnical data; trained AECOM junior and mid-level engineers
2022/Vedanta Cairn India	Flood Modelling studies and Recommendation of Mitigation Measures for Well Pad 11 (RWP-11), Raageswari	Consultant – Devising flood protection solutions & prepared a comprehensive report by integrating different studies
2021/L&T Heavy Civil viz SGES	Mumbai Coastal Road Project	Consultant & Principal Engineer - MASW test for 2D site characterization around test pile locations at AGI, MCB & HAI (authored 3 major reports)
2021/L&T Heavy Civil	Mumbai Coastal Road Project	Principal Engineer and Manager – Estimating the relative density of reclaimed land by MASW tests – Phase 3 & 4
2020/ ITD Cementation	Geotechnical Investigations for Bengaluru Metro Rail Corporation Limited (BMRCL), Phase 2	Principal Engineer – field execution of geophysical surveys, combined interpretation of geotechnical (borehogs, pressuremeter – both menard and oyo type) and geophysical studies
2020/ Atlantic Gulf & Pacific Company of Manila Inc. (AG&P)	Geotechnical Investigations for extension facilities - LNG regasification plant for Karikal Port Private Limited (KPPL)	Principal Engineer – leading geophysical site investigations (seismic cross hole & ERT) and combined interpretation of GI & geophysical studies in both marine and land

2020/L&T HeavyCivil	Mumbai Coastal Road Project	Principal Engineer and Manager – Estimating the relative density of reclaimed land by MASW tests – Phase 2
2020/IIT Chennai	Seismotectonic Studies for proposed LNG Regasification Plant at Kukrahati, West Bengal	Principal Engineer and Manager – Geophysical investigations, Seismotectonic studies – generation of seismotectonic map, PSHA & DSHA, Ground response analysis, liquefaction potential evaluation
2019/ IIT Chennai	Integrated geotechnical and geophysical investigations for Vedanta, Cairn India	Project Manager, Consultant - planning of geotechnical investigation, combined interpretation of geotechnical and geophysical data, reporting, providing recommendations
2019/L&T Hydrocarbon and Subsea 7 JV	Saudi Aramco – CRPO project	Third party reviewer for Pre-Engineering Geophysical survey and Geotechnical Report for ZULF locations
2019/National High-Speed Rail Corp. Ltd. (NHSRCL)	Mumbai–Ahmedabad high-speed rail corridor	Sr. Geotechnical Engineer – As part of Geotechnical Investigation at Bkc terminal, Mmrda Ground, Mumbai involved in the interpretation and review of geotechnical and geophysical test data (including pressuremeter – menard type).
2019/National Petroleum Construction Company (NPCC)	Upper Zakum Offshore Oil Field Expansion	Principal Engineer - PSI/CSI studies for Zakum Oil fields, ADNOC for 3 packages viz. PACKAGE A- P-6283-Replacement of Upper Zakum Pipelines, PACKAGE B- P-7601-1MMBD Phase I & UZ750 Sustainability, PACKAGE C- P-6320-UAD Early Production Scheme Project - advice on carrying out laboratory test to estimate relevant soil parameters, combined interpretation of geotechnical and geophysical (side scan sonar, sub bottom profiler) reports, developing sectional ground models, arriving design parameters, estimating PSI/CSI parameters as per the guidelines of DNVGL RP114 and relevant literatures taking into consideration of the carbonate soil presence of the region
2019/ADOC – Japan Oil Company	Installation of CA-P to CA-D Pipeline	Same as above
2019/ L&T Heavy Civil Infrastrcuture	Construction of Fast Reactor Fuel Cycle Facility at Kalpakkam Atomic Power Plant	Geotechnical Consultant - conducted block vibration test for assessing dynamic properties of engineered backfill at IGCAR, Kalpakkam and provided recommendations
2018/ IIT Chennai	Integrated geotechnical and geophysical investigations for Vedanta, Cairn India	Project Manager, Principal Engineer - planning of geotechnical and geophysical investigation, execution of data acquisition as team lead, combined interpretation of geotechnical and geophysical data, reporting, providing recommendations

2018/ IBS- Kochi	Forensic investigations on piles in Kochi, India	Sr. Geotechnical Engineer - Review of reports and provided advice on the corrective measures
2018/ Cybermarine technologies- Singapore	Foundation assessment of mat supported jack up rig	Sr. Geotechnical Engineer – performed mat penetration and stability analysis using plaxis
2017/ Petronet LNG Limited	Feasibility studies for LNG re-gasification terminal at Kutubdia, Bangladesh	Sr. Geotechnical Engineer - Conducting seismic cross hole and ERT tests, Liquefaction Potential Evaluation, carrying out Seismic Hazard Analysis, Review of reports
2017/ Chennai Port Trust	Construction of bunker barge berth at Chennai Port Trust	Sr. Geotechnical Engineer - Estimation of rock socketed pile capacities through analytical and finite element approach using plaxis
2017/ Assetz Property Group	Here and Now - Multistorey Residential Apartments	Geotechnical Consultant; Rock Mapping for deciding the number of basements - Team lead for carrying out geophysical surveys, combined interpretation of geotechnical and geophysical reports, providing recommendations
2016/ IIT Chennai	Construction of multi-storey residential apartments at T Nagar, Tamilnadu Slum Clearance Board (TNSCB), Chennai	Business Development, Manager, Sr. Geotechnical Engineer
2016/ IIT Chennai	Construction of multi-storey residential apartments at Tondairpet, Tamilnadu Slum Clearance Board (TNSCB), Chennai	Same as above
2015/ Fishing Harbour Project Division, Government of Tamilnadu	Chetpet Eco Park (Soil investigation analysis and design of foundation and superstructures for various structures in sports fishing cum eco park)	Team lead - Geophysical data acquisition, Interpretation, Reporting, Integrating Geophysical results with Geotechnical findings (Site Characterization)
2015/ Tamil Nadu Slum Clearance Board	Construction of multi-storey residential apartments at B.S. Moorthy Nagar, Tamilnadu Slum Clearance Board (TNSCB), Chennai	Team lead - Geophysical data acquisition, Interpretation, Reporting, Integrating Geophysical results with Geotechnical findings (Site Characterization)
2015/ L&T Geo Structure	Reliance Industries Limited, Kakinada	Team Lead; Vibration monitoring during pile driving at onshore terminal - Data acquisition, analysis, Interpretation and Reporting
2014/ Tamil Nadu Slum Clearance Board (3 sites - 3 projects)	Construction of multi-storey residential apartments, Tamilnadu Slum Clearance Board (TNSCB), Chennai	Team lead - Geophysical data acquisition, Interpretation, Reporting, Integrating Geophysical results with Geotechnical findings (Site Characterization)
2014/ Tradex Shipping Co. (P) Ltd.	Hauling the submarine for TTDC, Govt. of Tamilnadu	Same as above
2014/ Cairn India Ltd.	Controlling post-rain damage at CIL installation in Rajasthan—Phase II (Mangala Processing Terminal, Raageshwari Gas	Same as above

	Terminal, Mangala, Bhagyam, Aiswariya oil fields) – 2 projects	
2013/ Pishon Concrete Test	Soil and Structural Analysis for Gamesa Wind Turbines Pvt. Ltd.—Repairing and Rehabilitation of Concrete Flooring	Team Lead – interpretation of geotechnical investigation results and reporting
2013/ Sri Lakshmi Narasimha Swamy Temple	Geotechnical Investigation at Mangalagiri Temple	Team lead - Geophysical data acquisition
2013/ Reliance Industries Limited	Samalkot Power Plant	Team Lead; Dynamic testing on piles - data acquisition, data analysis, interpretation and reporting
2013/ Ambojini Property Developers Limited	Investigation on Rock Profile at 20 Storey Residential Building Project Site, Kottivakkam, Chennai	Team lead - Geophysical data acquisition, Interpretation and Reporting
2013/ Foster Wheeler India Private Limited	Ennore LNG Terminal (Site Specific Seismic Studies at IOCL LNG Plant at Ennore)	Geotechnical analysis using SHAKE2000, reporting
2012/ CCCL Design & Build Sector	Rechecking of Pile capacity calculation and Review of Pile Integration Test Report	Desktop geotechnical engineering
2012/ Harihar Alloys Pvt. Ltd.	Vibration Mitigation Measures at Forging Unit	Team Lead - data acquisition, analysis, interpretation and reporting
2012/ KCT Consultancy Services	National Thermal Power Corporation (NTPC) Dhuvaran Thermal Power Station (Gujarat)	Team Lead; Dynamic testing on piles - data acquisition, data analysis, interpretation and reporting
2012/ Sew Infrastructure Ltd.	Block Vibration test for GTG Foundation	Data analysis and interpretation
2012/ Larsen and Toubro Limited	Construction of Gujarat State Petroleum Corporation Limited (GSPCL) Gas terminal, Kakinada	Team Lead; Dynamic testing on piles - data acquisition, analysis, interpretation and reporting
2011/ Kazstroy Engineering India Pvt. Ltd.	Construction of Indian Oil Corporation Limited (IOCL) refinery terminals at Paradip	Same as above
2011/ Development Consultants Pvt. Ltd.,	Seismic study for preparation of site evaluation report	Geotechnical Engineer - analysis using seismic software SHAKE 2000, interpretation, reporting
2011/ Gangadhar Jena	Construction of Indian Oil Corporation Limited (IOCL) refinery terminals at Paradip	Team Lead; Dynamic testing on piles -data acquisition, analysis, interpretation and reporting
2011/ Larsen and Toubro Limited	ONGC Mangalore Petrochemicals Limited (OMPL), Mangalore	Team Lead; Dynamic testing on piles - data acquisition, analysis, interpretation and reporting
2011/ Reliance Infrastructure Engineers Private Limited	Construction of 2400Mw Power plant, Samalkot	Geotechnical Engineer; Site Specific Seismic studies - analysis using seismic software SHAKE 2000, interpretation, reporting
2011/ Larsen and Toubro Limited	Construction of Indian Oil Corporation Limited (IOCL) refinery terminals at Paradip	Team Lead; Dynamic testing on piles -data acquisition, analysis, interpretation and reporting

Publications	**Journals** 1. Subramanian, RM and Parthasarathy, CR., (2020) Case Study - High Strain Dynamic Pile Testing to verify the Pile Foundation Capacities for High Rise Buildings, Journal of the Indian National Group of the International Association for Bridge and Structural Engineering (ING-IABSE), 50(3), Pg 47-56. 2. Subramanian, RM., Boominathan, A., (2016) Dynamic experimental studies on lateral behaviour of batter piles in soft clay, International Journal of Geotechnical Engineering, 10(4), pg 317-327,Taylor & Francis. 3. Boominathan, A., Krishna Kumar, S., Subramanian, RM. (2014) Lateral Dynamic Response and Effect of Weakzone on the Stiffness of Full Scale Single Piles, Indian Geotechnical Journal, 45(1), Pg 43 -50, Springer. **Conferences** 1. Subramanian, RM., Parthasarathy CR., Prashanth, T., and Minnu, KP., (2017) Rock Socketed Pile Capacity Estimation Through Analytical and Finite Element Approach, 7th Indo Rock Conference, pg 587, New Delhi 2. Subramanian, RM., Boominathan, A., (2017) Behaviour of Batter Piles under Dynamic Loads, Proceedings of the 19th International Conference on Soil Mechanics and Geotechnical Engineering, pg 831, Seoul, South Korea. 3. Subramanian, RM., Boominathan, A., (2015) Finite element studies on Batter Piles subjected to Lateral Dynamic Loads, Proceedings of the Sixth International Geotechnical Symposium on Disaster Mitigation in Special Geoenvironmental Conditions, pg 453, IIT Madras. 4. Subramanian, RM., Boominathan, A., (2013) Dynamic Response of Vertical and Batter Piles, Proceedings of the Seventh International Conference on Case Histories in Geotechnical Engineering, Chicago, USA. 5. Boominathan, A., Krishna Kumar, S., Subramanian, RM. (2012) Lateral Dynamic Response and Stiffness of Full Scale Single Piles, Proceedings of UK-India Education and Research Initiative (UKIERI) International Workshop on Seismic Requalification of Geotechnical Structures (SRGS), IIT Delhi. 6. Subramanian, RM., Boominathan, A., (2012) 1 g Experiments on Batter Piles Subjected to Dynamic Lateral Loading, Proceedings of The First Asian Workshop on Physical Modelling in Geotechnics ASIAFUGE-2012, pg 352, IIT Bombay. 7. Boominathan, A., Vikshalakshie, M.G., Subramanian, RM (2012) Site specific seismic study for a power plant site at Samalkot, Godavari rift basin in Peninsular India, Proceedings of the 15th World Conference on Earthquake Engineering, Lisbon, Portugal. 8. Boominathan, A., Krishna Kumar, S., Subramanian, RM. (2011) Lateral Dynamic Response and Effect of Weakzone on the stiffness of Full Scale Single Piles, Proceedings of First Indo – Japan Workshop In Geotechnical Engineering, Kochi.
LECTURES DELIVERED as Invited Speaker/Key Resource Person	▪ Delivered expert lecture “Bringing certainty in Site Characterization through Integrated Approaches” at the 5-day National Workshop on “Field Oriented Challenges in Civil Engineering” FOCCE – 2024 held at the National Institute of Technology Jamshedpur from 5th to 9th August 2024 ▪ Industry expert lecture “Integrated Site Characterization using Geophysical Methods” for L&T Water and Effluent Treatment BU on 15th December 2021.	

	▪ Industry expert lecture “An overview of geophysical methods deployed in site investigations/characterization with case studies” for Vellore Institute of Technology Vellore and IGS Vellore Chapter on 28th October 2020. ▪ Invited as Professional Faculty by L&T at Chennai for conducting two days training program titled “Site Characterization and Advances in Pile Testing” on 21st and 22nd Nov 2019. Delivered 6 hours of lectures over two days. ▪ Industry expert lecture on Overview of geophysical investigations with case studies on 27th September 2019 for L&T Infra Engineering ▪ Invited as Professional Faculty by L&T corporate training centre, Mysore for conducting two days training program titled “Recent trends and advances in Pile Foundation” on 25th and 26th July 2019. Delivered 6 hours of lectures over two days. ▪ Invited speaker by IGS Bengaluru Chapter for a workshop titled “Advances in Earthquake Geotechnical Engineering and Microzonation” at IISc Bengaluru on 28th June 2019. Delivered a lecture titled Geophysical Survey for Earthquake Geotechnical Engineering and Microzonation ▪ Invited speaker by MNM Jain College, Chennai. Delivered a lecture titled “Geophysical Test and Instrumentation” on 20th February 2019. ▪ Invited speaker by Highway research station, Chennai. Delivered a lecture on High Strain Dynamic Testing of Piles on 16th October 2018. ▪ Invited Speaker for Chennai Metro Rail Limited workshop organized by DFI of India in Chennai between 18th and 20th August, 2018. Delivered a lecture titled "Field investigations in Weathered and Hard Rocks". ▪ Invited speaker for Dr. ManojVerman’s “Short Course on Tunneling” conducted in Bangalore between 16th and 18th May, 2018. Delivered a lecture titled “Geophysical testing for Tunneling Applications”. ▪ Key resource person for the workshop titled “Non-destructive and Geophysical techniques for Geotechnical Site Characterization and applications to Civil Engineering” organized by BUET - Dhaka, 26th Sept 2017 to 28th Sept 2017. Delivered lectures covering topics - Geophysical Testing and Lateral Dynamic Load Tests on Piles. ▪ Invited speaker for one day workshop - Recent Trends in Geotechnical Engineering Services for Onland and Marine Constructions, organized by Dr.Ambedkar Institute of Technology, Port Blair, 15th March 2017. Delivered talk on “Geophysical testing and Instrumentation for Geotechnical Engineering”.
Awards and Recognitions	▪ Associate Editor – International Journal of Geotechnical Earthquake Engineering, IGI Global, USA. ▪ My paper titled “Behaviour of batter piles under dynamic loads” was accepted as one of the paper representing India for the 19th ICSMGE conference, September 2017, Seoul, South Korea organized by International Society of Soil Mechanics and Geotechnical Engineering once in every four years. Government of India scholarship (MHRD for Pursuing Doctoral Research). ▪ Government of India fellowship for attending International Conference "Case Histories in Geotechnical Engineering" - Chicago, USA 2013. ▪ Won 2nd Prize in paper presentation competition - IIT Madras, 2009. ▪ Reviewer for Indian Geotechnical Conference 2016, IIT Madras.

	▪ Reviewer for Indian Geotechnical Conference 2017, IIT Guwahati. ▪ Reviewer for DFI India Conference 2018, IIT Gandhinagar.
Personal Details	
Date of Birth	22-Nov-85
Nationality	Indian
Blood group	B+ ve
Languages	English,Tamil
Summary	▪ Combined industrial and research experience. ▪ Worked in more than 100 projects worth multibillion dollars for 15 years involving geotechnical and geophysical field tests, laboratory tests, software, analysis and designs. ▪ Experience and comprehensive knowledge in multidisciplinary areas.
LinkedIn Profile	https://www.linkedin.com/in/dr-subramanian-rm-3859463b/