Ramesh Gedela

PhD Scholar

School of Civil and Environmental Engineering.

University of Technology Sydney, Ultimo,

New South Wales, Australia, 2007.

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Research interests: Railway geotechnical engineering; Stability of tailing dams and underground tunnels; Numerical modelling; Ground improvement techniques to stabilize weak geomaterials.

PROFESSIONAL EXPERIENCE

Role: Casual Academic Tutor
Employer: University of Wollongong, NSW; **Faculty:** Engineering and Information Sciences
Period: Feb 2020 – Jun 2020
Key tasks:

- Conducted quiz and tutored undergraduate students.
- Marking the assignments and quiz exams for Principles of foundation engineering course (Civl462)

Role: Project Associate
Employer: Indian Institute of Technology, Madras; Supervisor: Prof. K. Rajagopal
Period: March 2019 – June 2019 (4 months)
Key tasks:

- Proof checking of various consultancy design projects; numerical simulations; material testing (Soils and geosynthetic material).
- Assisting fellow research scholars and Master of Technology (M.Tech.) students on research related issues.

Role: Teaching Assistant
Employer: National Programme on Technology Enhanced Learning, IITM.
Period: Jan 2019 – April 2019 (4 months)
Key tasks:

- Involved in tutoring, conducting quizzes for undergraduate students.
- Marking the assignments and quiz exams.
- Conducting online webinars to clarify the student's quarries with course coordinator.

EDUCATION

Qualification	Graduated	Institute	Score (CGPA)
Doctor of Philosophy	(In progress)	University of Technology Sydney, NSW, Australia.	N/A
Master of Science by research	June 2019	Indian Institute of Technology Madras, Chennai, India.	9.25/10

Bachelor of Technology *(Civil Engineering)*	Jun 2015	Acharya Nagarjuna University, Guntur, Andhra Pradesh, India.	9.05/10

SKILLS AND ACHIEVEMENTS

Computer languages: C, C++. FORTRAN and Python

Software packages: PLAXIS 2D &3D, ABAQUAS2D, FLAC2D&3D, VIC. ReSSA, MSEW, Geo SLOPE and KENPAVE

Academic achievements:

- Recipient of the University Postgraduate Award (Faculty Scholarship) and the International Postgraduate Tuition Award (IPTA) for doctoral research 2019
- Secured All India rank 1636 (in top 2% out of 116000 participants) In GATE entrance exam in Civil engineering stream 2016.
- Secured MHRD-HTRA fellowship 2016 for a period of 3 years, to pursue Masters' research at IIT-Madras.
- Certificate of appreciation in CEA technical fest at IITM 2014.
- Secured third place in paper presentation contest on nanomaterials in civil engineering at Annual Fest of Siddhartha Engineering College in 2014, Vijayawada, India.

Certifications: Digital Image correlations software (VIC2D) to understand failure mechanism of various material.

Professional Memberships

- International Society Soil Mechanics and Geotechnical Engineering (ISSMGE)
- International Geosynthetics Society (IGS)

Extra-curricular activities

- Volunteered for quality improvement program on Geosynthetic & Reinforced soil structures at IITM -2018.
- Volunteered for 9th Indian geotechnical conference (9th IGC) at IITM -2016
- Volunteered for basic and advanced level Praxis training program on computational geomechanics at IITM - 2017&2018
- Participated in model exhibition (water tank staging made with newspapers and bracing systems) in BECTOGON2K14 national level fest at Bapatla engineering college, Bapatla -2014
- Acted as a coordinator and led the public relations team in BECTOGON2K14 national level fest at Bapatla engineering college, Bapatla -2014
- Participated in national level Technical Fest at IIT Madras-2014
- I had organized an educational tour to visit Nagarjunasagar hydroelectric power project, Telangana -2013

LIST OF PUBLICATIONS

International peer-reviewed journal papers:

- **Ramesh, G**., Rajagopal, K., (2020). Influence of Pocket Shape on the Numerical Response of Geocell

Reinforced Flexible Pavements. Geosynthetics International.

- **Ramesh, G**., Rajagopal, K., (2020). Laboratory and Numerical Studies on the Performance of Geocell Reinforced Base Layer overlying Soft Subgrade. International Journal Geosynthetics and Ground Engineering (under-review).
- Murthy, D.S., **Ramesh G**., Rajagopal K. and Robinson, R.G. (2020) Effect of pile diameter on soil plug: An experimental and numerical investigation, Marine georesources and geotechnology (under-review)

Book chapter:

- Murthy, D.S., **Ramesh, G**., Rajagopal, K., and Robinson, R.G. (2019). 3D-Continuum Numerical analysis of Offshore Driven Pipe Pile using Finite Difference Method. *Symposium of the International Association for Computer Methods and Advances in Geomechanics (IACMAG Symposium) March 5th-7th 2019, Gandhinagar, India. DOI: 10.1007/978-981-15-0890-5_21 (Publisher Springer)*
- **Ramesh, G**., Rajagopal, K., (2018). A review on the role of geosynthetics in preventing the excessive settlement and mud pumping of railway track. *Geohazards, Indian Geotechnical Conference, December 13th-15th, Bengaluru, India. (Book will be available by July 2020, publisher Springer)*

National and International peer-reviewed conference papers:

- **Ramesh, G**., Rajagopal, K. (2018). Numerical modelling of geocell reinforced foundation beds. *11th International Conference on Geosynthetics (11ICG), September 16th-21st, Seoul, South Korea.*
- Murthy, D.S., **Ramesh G**., Rajagopal K. and Robinson, R.G. (2019) Numerical analysis of offshore driven pipe pile refusal using FLAC3D. *Proceedings of the 5thInternational Itasca Symposium Vienna, Austria February 18-20, 2020.*
- Rajagopal K. and **Ramesh G.** (2019) Three-dimensional numerical modelling of geocell reinforced foundation beds. *Proceedings of the 5thInternational Itasca Symposium Vienna, Austria February 18-20, 2020.*

PERSONAL DETAILS

Gender	**:**	Male
Nationality	**:**	Indian
Date of birth	:	15th July 1994
Languages known:		English, Hindi, Telugu