

CURRICULUM VITAE

V. G. Ram

MS & PhD Research Scholar

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About Me: I am a doctoral candidate (joint MS & PhD degree) pursuing research in the field of Construction and Demolition Waste Management. My research is focused on mitigating institutional barriers in developing recycling projects. I am always enthusiastic about development that is both sustainable and inclusive. I sincerely believe that there is no substitute for hard work. My research/work interests include Construction Project Management, Organisational Change, Entrepreneurial Dynamics, and Industrial Ecology.

EDUCATION

Program	Institution	%/CGPA	Year of Passing
MS & PhD	Indian Institute of Technology Madras	9.06/10	2012-present
B. E. (Civil Engg.)	College of Engineering, Guindy, Anna University	7.67/10	2010
XII	B.V.B. Hr. Sec. School, Erode	95.25	2006
X	Railway Mixed High School, Erode	92.70	2004

SCHOLASTIC ACHIEVEMENTS

- **1st Place** in the 2nd edition of the **UK India Social Innovation Challenge** conducted by Social Impact Lab at University of Southampton (UK), the British Council and the Centre for Social Innovation & Entrepreneurship (CSIE) at IIT Madras for the project titled “Recycling of demolished waste concrete using Solar energy” (2019)
- “**CEA Best Student**” award for All round performance in Academic, Co-curricular and Extra-curricular activities in **MS category in 2014** and in **PhD category in 2017** by Civil Engineering Association (CEA), IIT Madras

RESEARCH BASED CONSULTANCY PROJECTS HANDLED

ROLES & PROJECT DETAILS

- **Project Member:** “A New Framework for High Value Added Zero-Waste Recycling of Concrete from Construction and Demolition Waste”- project under Department of Science & Technology (DST) and UK-India Education Research Initiative (UKIERI) (2019-2021)

- **Project Co-investigator:** “Generation and Management of Construction Waste in Indian Projects: A Life Cycle Perspective” - project with M/s. Godrej properties Ltd. (2020-2021)
- **Project Member:** “Development of the Basis for Closed-loop Recycling of Waste Concrete Using Solar Energy” - project with M/s. Godrej properties Ltd. (2020-2021)
- **Project Co-investigator:** “Environmental Benefits of C&D Waste Recycling – A Case Study of Surat” – project with M/s. CDE Asia (P). Ltd. (2019-2020)
- **Project Co-investigator:** Preparation of “**Detailed Project Report** for Construction and Demolition (C&D) Waste Management in Tirupati City” and assist **Municipal Corporation of Tirupati (MCT)** to compete in the **Smart City Challenge** of the Government of India – a **research based consultancy** project for the Municipal Corporation of Tirupati (2016-2017)
- **Project Co-investigator:** Preparation of “**Detailed Project Report** for C&D Waste Management in Chennai City” and “Tender documents for the project implementation through PPP mode”– a **research based consultancy** project for the **Corporation of Chennai (CoC)** (2015-2016)
- **Project Co-investigator:** Preparation of “Construction and Demolition (C&D) Waste Management Plans for Projects of **L&T Realty Ltd.**, Mumbai City” (2016-2017)

HIGHLIGHTS

- Study of waste management practices & Institutional analysis (qualitative data analysis) (Using NVivo software as well as manual coding techniques)
- Application and translation of Institutional theory’s principles to C&D waste management
- Interaction with a variety of stakeholders such as Public authorities (incl. municipal corporations, pollution control board personnel, technology promotion council), Private organisations (incl. builders, demolition contractors, developers, building materials manufacturers), NGOs, Academic personnel (incl. experts from institute of national importance, and Public (incl. owners, users).
- Development of statistical models for estimation of C&D waste generation & composition at city level
- Market study of recycled products and economic viability assessment (CBA)
- Life cycle assessment of recycling processes and products (using SimaPro software & Ecoinvent database)
- Qualitative Comparative Analysis of best practices & strategies (using principles of Boolean algebra and TOSMANA software)
- Development of advanced recycling technology including material characterisation studies on recycled aggregate and recycled aggregated concrete (experimental studies in laboratory)

- Network design using Conjoint analysis & GIS, Technology & Layout design of Transfer stations & Recycling facilities
- Recommendations on incentives and policies for promoting C&D waste recycling

PROFESSIONAL EXPERIENCE

- **Asst. Manager – Quality** Aug'11- Jul'12
M/s. Associated Cement Companies Ltd. (ACC) (subsidiary of M/s. Holcim)

Profile involved **technical advisory to clients, complaint management**, monitoring & ensuring **quality control and quality assurance**, and managing central research laboratory activities in the **Northern region** (comprising 10 plants) including **design of concrete mixes** according to special client requirements and **performance evaluation of new products** in the market.

- **Graduate Engineer Trainee- R&D** Aug'10- Jul'11
M/s. Associated Cement Companies Ltd. (ACC) (subsidiary of M/s. Holcim)

Profile involved **managing R&D projects** in concrete division, **development of value added products**, design and performance evaluation of concrete mixes and other construction materials, monitoring quality control and quality assurance activities of RMC plants on a Pan India basis and related documentation.

UNIQUE PROJECTS HANDLED DURING PROFESSIONAL CAREER

- Design and Deminar (Demo+Seminar) of M100 grade of Concrete -first-of-its kind in India during May'12
- Design and implementation of Self Compacting cum Temperature Controlled Concrete – for “Lodha World One project in Mumbai during Jan'11 – May'11 (one of the World's tallest residential skyscrapers with 117 floors – 442 metres height)
- Product Development- Design and performance benchmarking of Ready-to-use Mortar (Aug'10-Dec'10) – a new product developed which the company eventually launched all over India in the period 2012-2013.
- Design & Implementation of Triple blend mixes which saved more than 100 Rs./m³ in the material cost of producing concrete and High Volume Fly Ash Mixes in the Northern region which earned profit of about 175 Rs./m³ in the material cost of producing concrete

PUBLICATIONS

Refereed Journals:

- Ram, V. G., Kishore, K., and Kalidindi, S. N. (2020) “Environmental Benefits of Construction and Demolition Debris Recycling: Evidence from an Indian Case Study using LCA.”, *Journal of Cleaner Production*, Vol 255, January 2020. DOI: <https://doi.org/10.1016/j.jclepro.2020.120258>

- Ram, V. G., and Kalidindi, S. N. (2017). "Estimation of C&D Waste Using Waste Generation Rates in Chennai, India", *Waste Management & Research*, Volume 6 (5), 610-617. (DOI: 10.1177/0734242X17693297)
- Ram, V. G., Prajapati, R., and Poulouse, M. K. (2019). "Challenges and Prospects of Demolition Waste Recycling in India", *Indian Concrete Journal*, September 2019.
- Vilventhan, A., Ram, V. G., and Sugumaran, S. (2019). "Value Stream Mapping for Identification and Assessment of Material Waste in Construction: A Case Study." *Waste Management & Research*, 37(8), 815–825. (DOI: 10.1177/0734242X1985)

Book Chapter:

- Kishore Kumar, C., Ram, V.G., and Kalidindi, S.N. (2020). "A Review of Studies on Environmental Performance Analysis of Construction and Demolition Waste Management using Life Cycle Assessment", in the book titled: "Urban Mining and Solid Waste Management", Springer, ISBN 978-981-15-0531-7 ISBN 978-981-15-0532-4 (eBook) <https://doi.org/10.1007/978-981-15-0532-4>.
- Ramanathan, M., and Ram, V.G. (2020). "Status of C&D Waste Recycling in India", in the publication: "Lecture Notes in Civil Engineering, Vol. 89, Krishna R. Reddy et al. (Eds): Sustainable Environmental Geotechnics", 978-3-030-51349-8, 474787_1_En, (Chapter 11) (article in press)

International Conferences:

- Ram, V., Mahalingam, A., and Kalidindi, S. N. (2017). "Institutional struggle behind the diffusion of C&D waste recycling practices", Proceedings of the 15th Engineering Project Organization Conference with 5th International Megaprojects Workshop, Stanford Sierra Camp, California, 5-7 June, 2017.
- Ram, V.G., Kalidindi, S.N., and Nanduru, H.K. (2017). "Influence of institutional arrangements on on-site recycling and reuse practices of C&D waste", Proceedings of the International HISER Conference on Advances in Recycling and Management of Construction and Demolition Waste, 21-23 June 2017, Delft University of Technology, Delft, The Netherlands, 327-331.
- Ram, V. G., and Kalidindi, S. N. (2015). "Building Demolition Waste Management Practices - An Indian Case Study", Proceedings of The 4th World Construction Symposium on Sustainable Development in the Built Environment, Colombo, Sri Lanka, 12-14 June 2015.
- Ramanathan, M., and Ram, V. G. (2019). "Status of C&D Waste Recycling in India", Proceedings of the 2nd International Conference on Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering, UIC, Chicago, June 16-20, 2019.
- Kishore Kumar, C., Ram, V.G., and Kalidindi, S.N. (2018). "A Review of Studies on Environmental Performance Analysis of Construction and Demolition Waste Management using Life Cycle Assessment", Proceedings of the 8th International

Conference on Sustainable Waste Management, Guntur, AP, India, Nov. 22-24, 2018 (won best paper award).

- Kalidindi, S. N., and Ram, V. G. (2013), “Recycling of C&D Waste- Sustainability & Research Issues”, International Conference on Energy, Environment and Eco-friendly Buildings (ICEEEB), Bangalore, 19-21 Sep 2013.

International Workshops:

- The paper titled “Research in Construction and Demolition (C&D) Waste Management: A Review” authored by Kalidindi, S. N., and Ram, V. G. was presented in the International workshops on Construction and Demolition Waste Recycling held at the following places
 - Vigyan Bhavan, New Delhi, 28 Feb - 1 Mar 2013
 - IIT Madras, Chennai, 5-6 Aug 2013
 - CSIR – SERC, Chennai, 5-7 Feb 2014
 - JNTU, Hyderabad, 28 Feb 2015
- Ram, V. G., and Kalidindi, S. N. (2016). “Construction and Demolition Waste Management- Chennai Case Study”, Proceedings of the International Workshop on Recycling, Use and Management of C&D Wastes, IIT Madras, Chennai. 21 June 2016.
- Ram, V. G., Kalidindi, S. N., and Ramanathan, M. (2013). “Characterization Studies on Recycled Concrete Aggregate (RCA) and RCA Concrete – A Pilot Study”, Proceedings of the International Workshop on Construction and Demolition Waste Recycling, IIT Madras, Chennai, 5-6 Aug 2013.

POSITIONS OF RESPONSIBILITY HELD

- **Core Organizing Team Member** – International Seminar on “Modern Equipment for Construction”, Sep’12, International Workshop on “Construction & Demolition Waste Recycling”- Aug’13, International Workshop on “Recycling, Use & Management of C&D Wastes”- June’16 held at IIT Madras.
- **Head- Facilities & Requirements** – International conferences on Advances in Building Sciences and Rehabilitation & Restoration of Structures held at IIT Madras, Feb’13, and RILEM held at Leela Palace, Chennai- Sep’17.
- **On-the-Job Training Coach**, QC & QA activities for Lab officers and Field technicians of Northern region – M/s. ACC Ltd., 2011-2012
- **General Secretary**, Society of Civil Engineers - CEG, Anna University, 2009-2010

ACHIEVEMENTS & AWARDS

- **Gained admit** (One among 98 who gained admit among lakhs who competed from all over India) for the course 6 SSC (M) F(P) by clearing the **Services Selection Board Interview** conducted by **Indian Air Force** for the rank of **Flying Officer** (2010)
- Awarded “**Rajya Puraskar**” – Governor award in “The Bharat Scouts & Guides” Association (2003)

- Member of the team that won 1st prize in the design & modelling of Pelton Wheel Turbine (working model) in 2008 and won 2nd prize in the design & modelling of Roller Coaster (working model) in 2007 at Daksh – SASTRA University; won 1st prize in the design & modelling of Cable-stayed bridge in 2007 at Geo Fest – GCT Coimbatore.
- **Six Individual Awards and Sixteen Team Awards** as a Member of the IIT Madras Hockey team between 2012-2018.
- **“Randonneur”** by Audax India Randonneurs, a Audax Club Parisien (ACP) recognised organisation by completing 200 km BRM – 2014
- **Athletics:** Several medals and accolades in various Athletic meets between 2004-2010.
- **Football: Represented Erode District** team in the **Tamil Nadu State Level Football Tournament** and secured 4th place (2005)

OTHER ACTIVITIES

- Regularly conduct personality development sessions for struggling college undergraduates of my alma mater through Anna Hockey Alumni Association. The sessions include interview preparations (both Technical and Armed forces’ service selection board interviews), group discussions, communication skill, and breaking language barriers (2012-present)
- Actively engaged with industry bodies such as Indian Concrete Institute, and Indian Demolition Association to spread awareness and sensitise all stakeholders about the impact of C&D waste disposal and the ways for achieving sustainable development. I have given several talks in this subject including workshops of themes such as ‘Waste to Wealth’ (2013-present)

REFERENCES

MS & PhD THESIS ADVISORS:

Prof. K. N. Satyanarayana

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