

Celebrating the Generosity of

Mr. RAM SUNDARAM



Impact of your giving in 2023

DIRECTOR'S MESSAGE



Prof. Kamakoti Veezhinathan Director, IITM

Greetings!

IIT Madras continues to retain her top position for the eighth consecutive year, in the National Institute Ranking Framework, thanks to the world-class research of its faculty and students. The contribution and support of *Alumni and well-wishers like you* has crucially helped this standing and stature. Our achievements in research, education, innovation and entrepreneurship have also earned us the recognition of an 'Institute of Eminence' as well as the top position in the Atal Innovation Ranking from the Government of India.

The institute is making an indelible mark with her 'research with impact' in several areas including quantum computing, drinking water technology, industrially relevant mathematical models for governance, rendering cancer-cure more effective. Our centres of excellence, the Center for Innovation, Nirmaan – the pre-incubator, the Incubation Cell, technology centres such as 'IITM-Pravartak' and others, work in unison for not just our nation's building, but societies world-wide. We aspire to be locally impactful and globally relevant through all these efforts.

Towards exploring new research frontiers, a Department of Medical Sciences and Technology has been launched to conjoin medicine and engineering. Similarly, a School of Sustainability is on the horizon to research sustainable practices in the Global South. The campus is moving towards 'carbon-net-zero' goal through water conservation by 100% recycling, efficient garbage disposal, and electrification of vehicles. The traditional education system is undergoing a paradigm shift, with our online Bachelor of Science programme in Data Sciences and the National Program of Technology Enhanced Learning, that have won Gold in the 'Lifelong Learning' category and Silver in the 'Best Online Program' category of the Wharton-QS Reimagine Education Awards 2022 respectively. IIT Madras is leading this revolution from the front.

Such achievements are not possible without the deep-rooted faith and support of alumni and well-wishers such as yourself. We are indebted to you for your generous, bountiful, and impactful contributions. On behalf of IIT Madras, I offer you our deepest gratitude for continuing to strengthen the Institute. Together with your support, we are confident of building an IIT Madras that is more inclusive, diverse, and enabled by an ecosystem to be nationally relevant and globally recognised. Thank you!

DEAN'S MESSAGE

Prof. Mahesh Panchagnula Dean, Alumni & Corporate Relations, IITM

Dear Mr. Ram Sundaram,

I express my heartfelt gratitude to you for your generous support to IIT Madras. We appreciate your passion in supporting the causes you do and I assure you that your contributions will be optimally utilised. This report has been compiled to convey how your largesse has touched lives and made a difference at IIT Madras. In keeping with the rapid, contemporary strides in science, technology we have set ambitious goals for ourselves your continued enthusiasm and support will help us greatly in these endeavours.



IIT Madras is far more diverse in its set of pursuits, more green and more research-focused. And yet, it remains unchanged over these years, it is still the best Institute in the country, and attracts the best students that India has to offer to come and make a mark. I also cordially invite you to visit your campus to see for yourself, the impact of your contribution, and the growth and transformation the Institute has undergone over the years.

We can never express our gratitude enough for all that you have done - Thank You!



CAUSES SUPPORTED

- P. K. Aravindan Institute Chair
- Prof. M. S. Ananth Endowment
- Travel Grant

P. K. Aravindan Institute Chair

Chair Professorships are awarded to Professors who have distinguished themselves and have been recognized by their peers for their research and/or technology development. This award is for a period of five years followed by a review and possible extension.



Prof. P. K. Aravindan

Department of Civil Engineering, IITM

The Prof. P K Aravindan Institute Chair has been established to honour the late Prof. P.K Aravindan, an outstanding teacher who was very popular among his colleagues. He has inspired generations of students as well as research scholars, teaching a variety of courses at both undergraduate and post-graduate levels. Under Professor P K Aravindan's tutelage, students thrived and through his leadership as Chairperson in department of Civil Engineering (1998-99), younger faculty members made great professional strides, each enriched by his unique style of teaching and leadership. He was also a very competent structural designer who made significant contributions to a host of industries, in terms of structural design of a variety of buildings, bridges and port structures, through innovations in design and retrofit of old or damaged structures.

Occupants of P. K. Aravindan Institute Chair



Prof. Rajagopal K
Senior Professor (Retired)
Department of Civil Engineering

First Occupant April 2021 to June 2022

Prof. Rajagopal K, a Senior Professor in the Department of Civil Engineering, was awarded the first occupant of the Prof. PK Aravindan Institute Chair Professorship from April 2021 to June 2022. Prof. Rajagopal superannuated on June 30, 2022.

<u>Click here</u> to view the detailed report on Prof. Rajagopal's teaching and research experience and the chair launch program.



Prof. Meher Prasad A

Professor

Department of Civil Engineering, IITM

Professor Meher Prasad has over 32 years of research experience in structural dynamics and earthquake engineering. His PhD work was in the area of dynamic soil-structure interaction. His recent work is related to computational modelling of the reinforced concrete buildings and bridges subjected to earthquakes. Specifically, the work is concentrated in preparing seismic evaluation methodologies and in obtaining required computational tools to identify all the possible failure mechanisms of the available Indian building stock considering the prevailing construction practice.

Current Occupant July 2022 to February 2026

His research group is currently working on developing fragility curves for the building typology available in India. His other research areas include- Glass fibre reinforced gypsum wall panel building systems, bridge health monitoring, structural reliability, and computational mechanics. He also worked on vulnerability models for buildings in the cyclone prone areas. His bridge related research work include- probabilistic modelling of highway bridges, congestion factors, instrumentation, and monitoring of bridges; construction stage behaviour of cable stayed bridges; time dependent behaviour of bridges.

Qualifications:

- Ph. D. in Civil Engineering (1989), Rice University, Houston, Texas (USA).
- Bachelor of Technology (1982), Indian Institute of Technology, Madras (India).

Prof. Meher's significant contributions and accomplishments

- Author of over 120 papers, a significant number of them in structural dynamics and earthquake engineering.
- Recipient of 1990 NORMAN Gold medal from American Society of Civil Engineers (ASCE)
- Member of Bureau of Indian Standards Committees on Seismic assessment and strengthening of buildings (CED39:9), Earthquake resistant design and construction of prefabricated/precast structures. Tall buildings, Wind loads.
- Member IRC B-2 committee
- Institute coordinator for National Programme on Earthquake Engineering Education (NPEEE) and member of its Programme Implementation Committee.
- Institute coordinator for National Programme for Capacity Building of Engineers in Earthquake Risk Management (NPCBEERM), sponsored by Ministry of Home Affairs, Government of India.
- Member of expert committee on preparation of manual of retrofitting of buildings constituted by Indian Buildings Congress.
- Reviewed papers for journals such as Earthquake Engineering & Structural Dynamics, ISET
 Journal of Earthquake Technology, Engineering Analysis and Design, Journal of Institution
 of Engineers (India), Current Science, etc.
- Principal Coordinator for Indo-Italian significant bilateral project with University of Pavia, Italy on Seismic Vulnerability of Historic Centres in India.
- Conducted many short workshops and courses for the practicing engineers and engineering college teachers.
- Some of the bridge related consultancy work include: Proof Checking and Design Guidance for Construction of Six-lane Extra-dosed Cable-stayed Bridge over river Hooghly beside Iswar Gupta Setu at Kalyani in the State of West Bengal; Proof checking Design and Construction of Cable-stayed Bridge across River Mandovi at Panaji including approach viaducts on NH-17 between Pundalik Nagar Junction Porvorim) to Merces Junction; Remedial measures and proof checking of Arch Bridge at Gaundali; Design and Construction of 4 Lane Grade Separator, ROB over the existing Railway line, Road Bridge across NH-44 and Vehicular Under Pass bridges at Kempegowda International Airport Bengaluru under BIAL; Proof Checking and certification for Three span continuous superstructure and substructure of Hyderabad Metro Rail Project; Proof checking Construction of H.L. Bridge over river Subarnarekha at 36th km on Haldipada NH-16 to West Bengal border via Baliapal, Pantei & Chandaneswar including approaches; Proof checking Fore court structure at CSIA for Mumbai International Airport Limited.

Recent Journals

- 1. Thangamani, A., Ganesh, L.S., Tanikella, A. and Prasad A, M., 2022. Issues concerning IoT adoption for energy and comfort management in intelligent buildings in India. **Intelligent Buildings International, 14(1), pp.74-94.**
- 2. Williams, P. Mary, Devdas Menon, and A. Meher Prasad. "Experimental study on long-term behavior of PSC beams." In Structures, vol. 51, pp. 560-572. Elsevier, 2023
- 3. Paul, Shinto, Aishwarya Shaji, Devdas Menon, and A. Meher Prasad. "Experimental study on Glass Fibre Reinforced Gypsum-Reinforced concrete floor slab systems." In Structures, vol. 49, pp. 415-425. Elsevier, 2023.
- 4. Priyadharshani, S. Anitha, A. Meher Prasad, and R. Sundaravadivelu. "Experimental study of GFRP stiffened plates with and without large opening under combined axial and pressure loading." Materials Today: Proceedings (2023).
- 5. Priyadharshani, S. Anitha, A. Meher Prasad, and R. Sundaravadivelu. "Study of GFRP composite stiffened panels with square opening." Materials Today: Proceedings (2023).
- 6. Krishna, SR Gouri, Devdas Menon, and A. Meher Prasad. "Lateral load behaviour of Glass Fibre Reinforced Gypsum walls supported on Reinforced Concrete frames." In Structures, vol. 44, pp. 548-565. Elsevier, 2022.
- 7.Thangamani, Arunvel, L. S. Ganesh, Anand Tanikella, and A. Meher Prasad. "Occupant adoption of IoT based environment service in office spaces: an empirical investigation." In Re imagining Diffusion and Adoption of Information Technology and Systems: A Continuing Conversation: IFIP WG 8.6 International Conference on Transfer and Diffusion of IT, TDIT 2020, Tiruchirappalli, India, December 18–19, 2020, **Proceedings, Part I, pp. 685-693.**Springer International Publishing, 2020.
- 8. Geevar I., Menon D., and Meher Prasad A. (2020). "Strut-and-tie-based design and testing of reinforced concrete pier caps." ACI Structural Journal, 117
- 9. Deepthi T.M., Saravanan U., and Meher Prasad A. (2019). "Algorithms to determine wheel loads and speed of trains using strains measured on bridge girders." **Structural Control and Health Monitoring, 26**
- 10. Ronald J.A., Menon A., Prasad A.M., Menon D., and Magenes G. (2018). "Modelling and analysis of South Indian temple structures under earthquake loading." Sadhana Academy Proceedings in Engineering Sciences, 43

Prof. M. S. Ananth Endowment

Prof. M. S. Ananth Endowment Fund at the IIT Madras is the fund established to honor Prof. M. S. Ananth, who served as the Director of IIT Madras from 2001 to 2011. He was well-known for his contributions to science and teaching, as well as his tireless efforts to develop higher education and research in India. The alumni and well-wishers have contributed towards this endowment.

The interest accrued from this endowment is used to support the following activities:

- 1. Socially Relevant Projects
- 2.To support the educational needs of the children of staff members of self-help organizations who work on IITM campus.



Socially Relevant Projects:

IIT Madras has been in the forefront of developing technologies to solve pressing problems in society. It showcases cutting-edge research on technologies for social impact.

Total number of Projects - 22

Highlights of some projects:



Prof. Nikhil BugaliaProfessor
Department of Civil Engineering, IITM

Project Name: Construction and Demolition (C&D) Waste Management and the Role of the Informal Unorganized Sector in India: Case of New Delhi

The Objective of the Project: Identifying early-stage demolition projects in different parts of the City and various stakeholders involved in the identified projects to understand their roles in an informal/formal C&D waste management system through interviews.

Project Name: Tracking Beehive Health Using IoT Technology

The Objective of the Project: The objective of the work is to build an IoT-based tracking system to monitor the health of a beehive.



Prof. Madhu Mutyam
Professor
Department of Computer Science
and Engineering, IITM



Prof. Sreeram K. Kalpathy
Professor
Department of Metallurgical and
Materials Engineering, IITM

Project Name: Farmer-friendly, point-of-use, portable heavy metal sensors with cell phone interface: A new technical aid for the agricultural sector.

The Objective of the Project: Analysing water quality and heavy metal presence in water samples collected from several temple tanks in Rameswaram, Tamil Nadu using ICP-OES facility at SAIF- IIT Madras.

Project Name: Community Screening of "Kasimedu fisherwomen" for cervical cancer using a self-sampling kit and an indigenous innovative detection device.

The Objective of the Project: This project is aimed at a community screening of cervical cancer in Kasimedu fisherwomen and the detection of an HR-HPV in these women by using an indigenous detection device (developed at IITM).



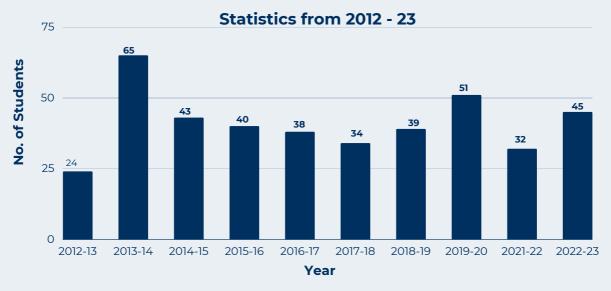
Prof. Rayala Suresh Kumar

Professor

Department of Biotechnology, IITM

To support the children of staff members:

Over the years the funds have been disbursed among students. The below graph depicts the number of students who have reaped the benefits.

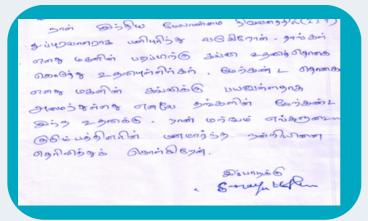


In 2022, 45 children of the IIT Madras campus Self-Help group staff have been given support to their tuition fee through this scheme.

Gratitude Note from some of the beneficiaries:



Respected Mam/Sir I am S. madesh son of Kasthuri, Thank you for Sponsaring my Education Fees you have been a source of constant Support and impiration for me I am grateful and humble and realize the amount of feet dedication, I will Study Perfactly and well. Thank you Mam / Sir S. madesh.





To read more feedback

(CLICK HERE 🕞

For the detailed report please (CLICK HERE ())

Travel Grant

The goal of this travel grant is to facilitate the professional development of undergraduate and graduate students/research scholars and faculty by supporting their travel for attending professional meetings.

This also supports exchange programs, summer schools, and joint doctoral programs which provide an opportunity for the recipient to present his/her own research This enables recipients to interact with peers and established scientists, which also helps develop professional contacts to facilitate their career development.

SOME OF THE BENEFICIARIES BENEFITTED FROM THE TRAVEL GRANT- 2022 to 2023



BAKUL JANGLEY Exchange semester at Technische Universität Berlin (TUB)



AMOGH WAGHMARE Foreign Internship at University of Tokvo



PRATYUSH KUMAR Conference at National University of Ireland, Galway Program at Politecnico di



RAMITA JAWAHAR Semester Exchange Milano, Milan, Italy



DEEPAK BAJHAIYA Participated virtually in the SPIE medical imaging conference in San Diego, California



SHRISHTI ADHIKARY Awarded the Mitacs Globalink Research Scholarship to work at Simon Fraser University in Surrey, Canada



SREELEKSHMI PS XXII International Conference on Mechanics in Medicine and Biology, University of Bologna, Italy



AMAL ZULFIKAR Mitacs Globalink Research Internship, Université de Sherbrooke -Campus de Longueuil, Montreal, Canada

To view more details about these beneficiaries



Benificiaries benefitted throughout the years:



We are grateful to you!

Mr. RAM SUNDARAM and Family!



Thank you for your sustained generosity to IIT Madras over the years. Contributors such as yourself enable our students and Professors to dream big and work towards a better and brighter future. We hope you are proud of your alma mater and how it has remained steadfastly committed to academic and research excellence since your time here.

You and your family have been instrumental in facilitating this significant growth. Our efforts to nurture the culture of academic excellence that is the hallmark of IIT Madras - quality education, cutting-edge research, and unfettered creativity shall continue. We are privileged and humbled to have you and your family walking with us along this trail. We wish you and your family the best always in all walks of life!



Indian Institute of Technology Madras, Chennai – 600036

www.iitm.ac.in

For more information, please contact:

Office of Alumni and Corporate Relations

T: +91-44-2257 8390 | acr.iitm.ac.in









