



INDIAN INSTITUTE OF TECHNOLOGY MADRAS
OFFICE OF ALUMNI AND CORPORATE RELATIONS

Celebrating the generosity
of

**Shri T.T. Jagannathan
&
Smt. Latha Jagannathan**



Impact of your giving in 2024

Director's Message

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 in May 2023 to conjoin medicine and engineering. Similarly, a School of Sustainability was also created in October 2023 to research sustainable practices in the Global South. The campus is moving towards a '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!



Prof. Kamakoti Veezhinathan

Director, IIT Madras

Dean's Message

Greetings! 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 utilized. 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 endeavors.

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!



"GIVING IS NOT JUST ABOUT
MAKING A DONATION -
IT'S ABOUT
MAKING A DIFFERENCE"



Prof. Mahesh Panchagnula

Dean, Alumni & Corporate Relations, IITM

Shri T.T. Jagannathan, is first and foremost someone who loves to cook. His need to innovate always begins in the kitchen. 'If you don't know how to cook, then you are not in the cooking business', he says. Often referred to as 'The Kitchen Mogul.' Shri TT Jagannathan is a gold medalist from IIT Madras and holds a PhD in operations research from Cornell University, USA. He has been on the board of TTK Prestige for the past 47 years. He is the author of the famous book 'Disrupt and Conquer-How TTK Prestige became a Billion Dollar Company'. The book is a journey about the company's many milestones and how it had fought bankruptcy to become a successful agency. He was instrumental in turning around the TTK group and making it debt free with a huge dose of common sense as he is.

The report will present a thorough assessment of the impact that your contributions have made towards the causes outlined below:

**TTK Merit Cum Means
Scholarship Endowment**

**T.T. Jagannathan
Auditorium**

**1970 Batch Golden Reunion
- Prof. M S Ananth
Endowment Fund**



Shri T.T. Jagannathan
[1970/BT/ME]

TTK Merit Cum Means Scholarship Endowment

The following students benefitted through the TTK Merit Cum Means Scholarship.

- Prakash Kumar Jha - ED22B059
- Saqlain Kazi - NA22B069

“

“This scholarship has reduced a lot of pressure for me, I come from a very humble background, and my father has faced a lot of difficulties to educate me, this scholarship relief the pressure on my family and helps me to focus on my studies without worrying. I thank the donor for the scholarship on behalf of my entire family.”

”

Saqlain Kazi

NA22B069

T.T. Jagannathan Auditorium

The naming rights endowment is used for the following:

- 1 Maintenance of T.T. Jagannathan Auditorium**
- 2 Furthering Research @ IIT Madras**
- 3 Supporting TTK Centre for R2D2**

The T.T. Jagannathan Auditorium is an emblematic venue, serving as the prestigious backdrop for a wide array of distinguished events that epitomise the essence of IIT Madras. Renowned for its exceptional ambience, it is the most coveted space for hosting impactful lectures, engaging workshops, insightful conferences, inauguration, enlightening symposia, and heart-warming reunions. Throughout its history, the Auditorium has witnessed numerous momentous occasions, including Alumni Days and Reunion Days, leaving a profound and unforgettable impact on its attendees.



'People First' book launch by
Mr. Mathivathanan
[1988 / MT / ME] IAS

Building India 2047 –
Innovative Technologies for a
Better Tomorrow IIT Madras
CSR Summit & Awards



Reunion 2024

Launch of
School of Sustainability
– 7th October 2023



Furthering Research @ IIT Madras

The New Faculty Initiation Grant is provided for the new faculty members to help them kick start their research in the institution. It will aid them to meet their various research initiatives. The institution encourages the new faculty members to do their research by providing grant which is donated by the distinguished alumni of the institution.

This grant is helpful to the new faculty in various ways like purchase of equipment, travel expenses related to the research, purchase of software, experimental expenses, future progress of the research, future research programs etc. Many such research of social importance are carried out with this grant which will create a great impact on society.

01

Prof. Mohanakrishnan Logan, Civil Engineering (Bioenergy & Bioproducts, Solid waste management, Water & Wastewater treatment, Chalcogen science & Technology, Critical rare metals & rare earth elements, Circular economy)

02

Prof. Ravichandran Shivanna, Physics (Next Generation solar cells)

03

Prof. Tanushree Parsai, Civil Engineering (Environmental Engineering, Emerging contaminants fate & removal, Risk assessment)

04

Prof. Thanggoulen Kipgen, Humanities & Social Sciences (Sociology of migration, migration, urban ethnography)

05

Prof. S. Ramprasath, Electrical Engineering (Physical design automation, analog & mixed signal placement & routing, solving NP-hard & complete problems using Isingmachines)

06

Prof. Lakshmi Narasimhan Theagarajan, Electrical Engineering (Wireless communication, Statistical Learning and Distributed Signal Processing)



Dr. Mohanakrishnan Logan

Civil Engineering

Title of the Project: Mesophilic and thermophilic anaerobic digestion: Evaluation of biomethane and volatile fatty acids production and kinetic model analysis

Brief Objectives of the Research:

Biomethane sector helps in the reduction of greenhouse gas emissions and to meet India's ambitious carbon emission reduction goals. India has a biogas potential of about 30 million tonnes per year, however, less than 1% of this is currently utilized. Therefore, it is imperative to demonstrate biomethane production from unconventional substrates that are largely untapped or underutilized.

This project explores the potential of untapped wastes for Biomethane potential tests, conducted in an orbital shaker incubator at both mesophilic (at 37oC) and thermophilic conditions (at 55oC) at 150rpm. The concentration and composition of volatile fatty acids (viz.,acetate, propionate, butyrate, caproate and valerate) produced During the incubation are investigated as well. Following the profiling of biomethane and VFAs, modelling tools such as the modified Gompertz model are used to estimate the kinetic parameters.

Highlights of the scheme's utility towards research:

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Thank you very much for your kindness. Your funding has helped me to set up my lab, and kick start our research activities. Sincere regards and gratitude



Dr. Tanushree Parsai

Civil Engineering

Title of the Project: Understanding interaction between nanoparticles and nanoplastics in aquatic medium

Brief Objectives of the Research:

The objective of this research is to understand aggregation and stability of nanoplastics in presence of other emerging contaminants like nanoparticles.

Highlights of the scheme's utility towards research:

Scheme helped in starting my research work and in setting up laboratory. It also helped in providing following answers

- Understanding fate of nanoplastics in wastewater
- Developing framework for assessing risk associated with nanoplastics

It is still being utilized for purchasing consumables and for experimental analysis



Extremely thankful for supporting initial research grant of my career



Dr. Thanggoulen Kipgen

Humanities and Social Sciences

Title of the Project: Migration, Food Preferences and Adaptations: A Study of the Northeast Migrants in Delhi.

Brief Objectives of the Research:

- Explore the challenges faced by Northeast migrants in accessing and preparing their traditional food in a new urban environment.
- Examine the role of social networks and commercial establishments in preserving and promoting Northeastern culinary traditions in Delhi.

Highlights of the scheme's utility towards research:

Funds from the scheme are used in procuring various equipment required in executing the research such as Desk Top, Laptop, Printers, buying stationary items, and buying secondary sources including books. It is also used for presenting the research findings in national and international conferences.

I would like to sincerely thank the donor for their great financial support towards my research endeavor. Your investment in this research project has not only facilitated the projects but has also greatly enhanced the advancement of knowledge. Because to your support, I have been able to pursue new lines of investigation and make substantial progress toward my goals. I have been able to obtain essential materials, procure necessary equipment, and engage in fruitful collaborations with professionals in my area of expertise.



Prof. S. Ramprasath

Electrical Engineering

Title of the Project: Automatic sizing of wires for analog/mixed-signal (AMS) circuits considering electrical and geometric constraints

Brief Objectives of the Research:

There are multiple open-source tools to automatically generate layouts for AMS circuits. The sizing is a multi-objective optimization problem that optimizes for bias, power, and various circuit-specific performance metrics. These sizes are specified manually and are conservative which potentially leads to wasted routing and area resources. This wastage has a domino effect on other parts of the design whose percolation leads to an overall increase in die size, power, and performance. Also, the sized search space explored manually is small. An increasing number of designs for various use cases makes a manual conservative approach unsustainable. This project attempts to automate the sizing task using multiple subproblems.

Highlights of the scheme's utility towards research

NFIG helped kickstart the project by helping procure necessary computer, GPU, and software licenses

I would like to thank Mr. T.T. Jagannathan for his generous donation to fund the new faculty. This is of immense help to kickstart the research career.

TTK Centre for Rehabilitation Research and Device Development (R2D2)

R2D2, the TTK Center for Rehabilitation Research and Device Development at IIT Madras, is a pioneering research group led by Prof. Sujatha Srinivasan from the Department of Mechanical Engineering. Established in 2015, R2D2 focuses on advancing human movement research and specialises in the design and development of rehabilitation and assistive technologies for individuals with movement impairments and locomotor disabilities.

The impact of R2D2 extends beyond research and development. The centre has successfully transferred its technological innovations to like-minded industrial partners, including its startup venture. This collaboration facilitates the production and distribution of R2D2's assistive products, bringing them to a broader market and making a tangible difference in the lives of individuals with movement impairments.



To view the videos click on the images



NeoStand - India's most customizable and compact Electric Standing Wheelchair



NeoFly & NeoBolt



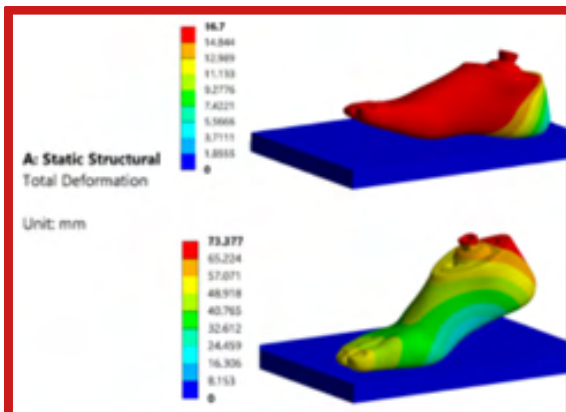
KADAM - Prosthetic Knee for Transfemoral Prosthesis



Standing Wheelchair Arise

PLUTO
Plug-and-train Robotic Kit For Hand Rehabilitation

Other Projects under Progress



ProFoot



Body-motion Wheelchair



Swimming Pool Lift

Power Assist for a Wheelchair



Cross Legged Sitting



Kneeling



120° Squatting



Stable Standing

EZ-LOK: lever-operated knee for Knee-Ankle-Foot Orthosis (KAFO)



Saathi Walker



All-terrain Wheelchair: Optimus

AREBO (Arm Rehabilitation Robot) is a 6-degree-of-freedom robot for training individual joint movements at the shoulder and elbow. This robot is under collaboration with Prof. Sivakumar Balasubramanian and his team at the Bioengineering department, Christian Medical College, Vellore.

AREBO



Sports 4 All event

1970 Batch Reunion – Prof. M S Ananth Endowment Fund

This Endowment Fund was 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 following activities are supported through this endowment fund:

- To support the educational needs of the children of staff members Tech Kids who work on IITM campus.
- To support socially relevant projects

To support the educational needs of the children of staff members Tech Kids who work on IITM campus

The Tech Kids daycare is run under the aegis of the IIT Madras Campus Welfare Trust and has been helped by generous contributions from the IIT Madras Alumni Association. The origins of Tech Kids trace back to the 1990s when the staff club ran it. A receptionist by the name Roja used to run it at the time with six children. Around 1997, with the initiative of Prof. Natarajan (then the Director), it received official recognition from the Institute. It was christened "Day Care cum Child Activity Centre (CAC)" with Prof. Hema Murthy as its first chairperson. It was initially run in a shed and employed a teacher and six helpers.

This year this endowment funds were used to help the children of the workers of the Tech Kids daycare.

We are Rakshana & Dhanush Daughter & son of K. Channamma. My Mother is working in IIT Tech Kids centre. Thank you so much for providing us school fees. It helped us a lot. Just saying thanks is not enough. This help means a lot to us. We will remember this forever. Once again thank you!



Rakshana & Dhanush Kumar
D/S/O K Channamma



Socially Relevant Projects

Our team is working along with the principal in charge in developing a portal to collect the various proposals for the Socially Relevant Projects from various professors at our institute. Once this is complete, we will select the recipients after reviewing all the proposals.

We are grateful to you

**Shri T.T. Jagannathan and
Smt. Latha Jagannathan**



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 during and after 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!



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July 2024