

Indian Institute of Technology Madras Office of Alumni and Corporate Relations

Celebrating the Generosity

of

Dr. Indira Subramanian

Impact of your giving in 2023

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 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 wellwishers 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, IITM

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!

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



Dr. Indira Subramanian

1978/BT/EE

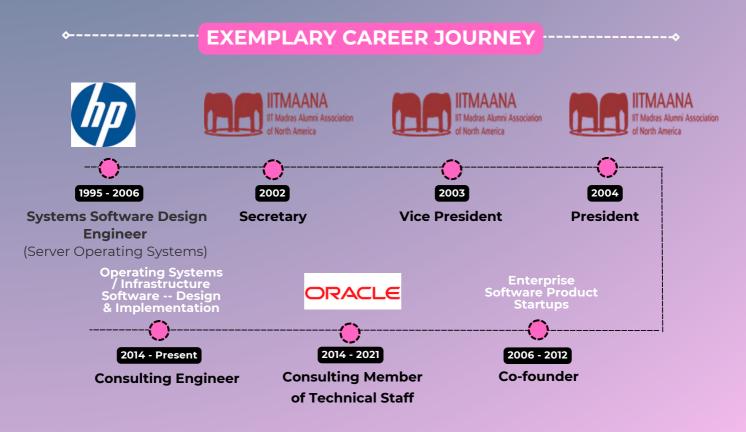
Operating Systems/Infrastructure Software – Design & Implementation

Dr. Indira Subramanian is a Software Engineer with research experience and extensive product development experience involving design and implementation of large, mission critical systems software.

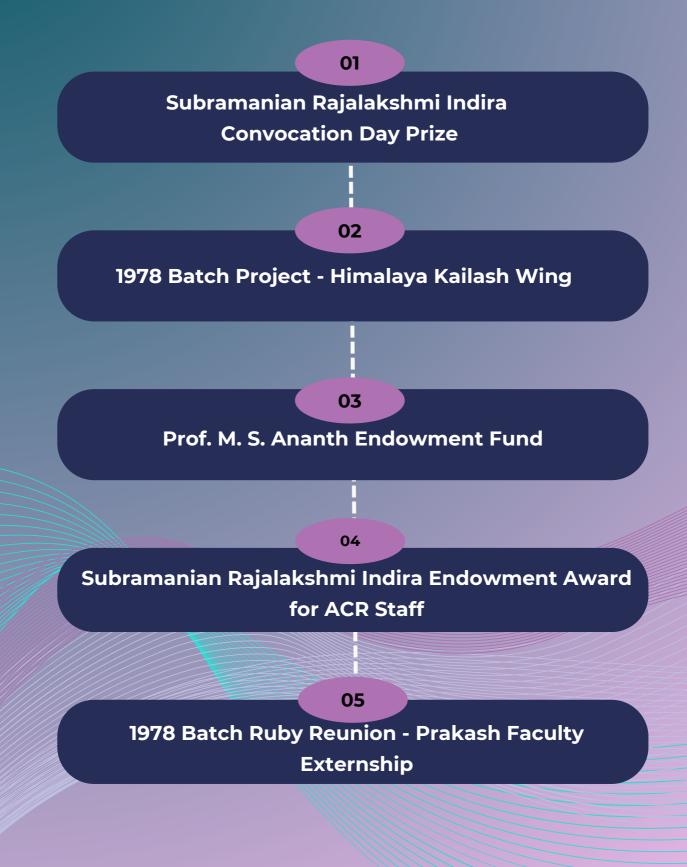
Dr. Indira is interested in research, design and implementation of scalable systems software for databases, filesystems, memory management, I/O, networking and storage. She is passionate about taking a big picture approach to innovation and product development based on up-to date knowledge of competitive landscape and effective collaboration across technology groups.

Her specialties are in the areas of high-end Server Operating Systems, Linux Kernel, resource management features for Oracle Database, memory management, competitive analysis, product development, parallelism, performance, scalability, mission critical systems software, kernel debugging, technical conference publications and presentations.

Dr. Indira holds a B. Tech in Electrical Engineering from Indian Institute of Technology, Madras, followed by an MS and a PhD in Electrical and Computer Engineering from Carnegie Mellon University.



SUMMARY OF YOUR CONTRIBUTION



Subramanian Rajalakshmi Indira Convocation Day Prize

Subramaniam Rajalakshmi Indira Endowment Prize is awarded to the B.Tech student with the best interdisciplinary project.

Recipient Name	Year of Award
Sanjay V	2020
Ragini Sreenath	2019
Ragini Sreenath	2019
Sreyas Mohan	2017
Abhinav Parakh	2017
Addarsh C	2015
Vivek Subramaiam	2013
Nithin Bollepalli	2012
Jaichander Swaminathan	2012



1978 Batch Project - Himalaya Kailash Wing

The Himalaya Kailash Wing at IIT Madras is a central dining facility that plays a vital role in student life, fostering interaction and serving as a hub of activity. Operating during breakfast (6:45-9 am), lunch (12-2 pm), and dinner (6:45-9 pm), it attracts a large number of students throughout the day.

The halls at Himalaya Kailash Wing can comfortably sccomodate 150 to 200 individuals at a time. Conveniently located adjacent to the dining area, clean restrooms ensure easy accessibility for students, eliminating the need to travel back to their hostels during busy schedules.

To enhance the dining experience, students are provided with comfortable steel tables and attached seating arrangements, creating a cozy and inviting environment. The mess halls are equipped with ceiling fans and proper ventilation to combat Chennai's hot and humid weather conditions.

The overall comfort and ambience of the mess halls contribute to a satisfactory dining experience for students. Alumni, like Kurian, fondly recall the pleasant memories and lively conversations shared at the dining tables of Himalaya Kailash Wing.

Strategically positioned amidst a picturesque setting with a wellmaintained garden and a scenic lawn, the Himalaya Kailash Wing holds a prominent place within the IIT Madras campus. Its location adds to its popularity among students and solidifies its status as an integral part of the institution's history. Similar to its namesake, the mighty Himalayas, this magnificent building continues to hold a special place in the hearts of the IITM community.





Prof. M. S. Ananth Endowment Fund



Prof. M. S. Ananth

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 wellwishers have contributed towards this endowment.

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

- To support socially relevant projects.
- To support the children of staff members of self-help organizations who work on campus with their school and higher education needs.

To support 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.

Snippets of the project:

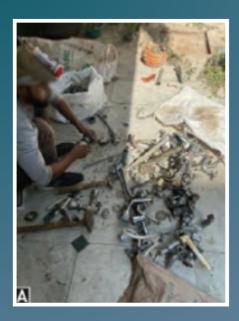


Prof. Nikhil Bugalia Department of Civil Engineering

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

↔----- 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.















Process photos of deconstruction, material preparation and transportation

Results indicate significant environmental and economic benefits contributed by the informal sectors as they engage in deconstruction, salvaging several materials otherwise considered waste, and adding value to the formal recycling process through their selective demolition practices.



Tracking Beehive Health Using IoT Technology

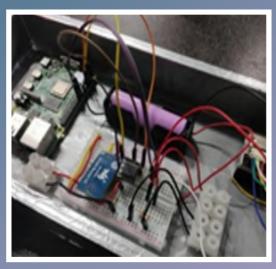
The objective of the work is to build an IoT-based tracking system to monitor the health of a beehive.



Prof. Madhu Mutyam

Department of Computer Science







It helps minimize manual inspection of the beehives so that beekeepers can handle a larger number of beehives at the same time, which can improve their income level.



Prof. Sreeram K. Kalpathy

Department of Metallurgical and Materials Engineering



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

↔----- Objective of the project ----->

Analyzing 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.



The project is aimed at helping farmers and agricultural cooperatives to decide on soil quality, by measuring soil salinity and heavy metal presence detection, so that they can sow crops in the right location and maximize crop yields.



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



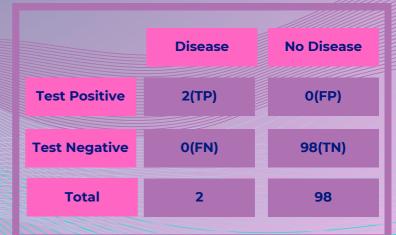
This project is aimed at a community screening of cervical cancer in Kasimedu fisherwomen and the detection of an HR-HPV in these women by using an indigenous detection device (developed at IITM).



Prof. Rayala Suresh Kumar

Department of Biotechnology

Fabrication of point of care device for detection of HR-HPV and continuous field work – community screening by enrolling more women into the cervical cancer screen



11

To support 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 from beneficiaries:



Respected Mam/Sir,

I am S. madesh Son of Kasthurin Thank you for Sponsoring my Education Fees you have been a source of constant Support and inspiration for me I am grateful and humble and realize the amount of fees dedication. I will Study Perfactly and well.

Thank you Mam / Sir

S. madesh.

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Childrens of staff members nourishing from the funds



1978 Batch Ruby Reunion - Prakash Faculty Externship

The faculty externship program is awarded for the faculty who travel abroad for short durations to universities across the globe mainly for research purpose.

1978 Batch have contributed magnanimously towards Prakash Faculty Externship in the memory of their classmate Prof. K. Prakash.



Objective:

- Evidence shows that research developed in collaboration with top global institutions have a 50% higher citation rate.
- A vital intention of this program is to enable a faculty member's first visit to the world's best research institutions abroad.
- This will create a virtuous cycle by increasing collaboration, improving the quality of research.
- This will improve the reputation of our faculty and institute, paving the way to attract new faculty and institutions interested in collaborating with IIT Madras in the future.



Details:

- This program will enable young faculty members of IIT Madras per year to spend between four to eight weeks abroad at a world-class institution.
- IIT Madras will define the requirements of the faculty applicant and the selection process and report on results relating to ongoing collaboration, research, publications, citations, etc.

Prakash Faculty Externship

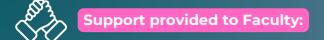


Prof. K. Prakash belongs to the batch of 1978. The **"Prakash Fellowship"** Faculty Externship was named in remembrance of Prof. K. Prakash during the Ruby reunion by the batch of 1978. Apart from his many accomplishments as a student at IIT Madras and a faculty at the University of Kansas, USA, his brief tenure as a faculty at IIT Madras reflected his desire to give back to his alma mater.

Prof. Prakash Krishnaswami

To know more





- This program will support expenses related to local hospitality as well as some local travel of the faculty.
- The cost of an externship per faculty will be between USD 6K to USD 8K depending upon the grant requested by the faculty.
- The interest from the endowmentfund provided by the 1978 batch Ruby reunion will support some faculty members every year for their Externship in the name of "Prakash Fellowship".



Prof. Anubhab Roy Assistant Professor Applied Mechanics

Prakash Faculty Fellowship - 2020

Because of COVID-19 Prof. Anubhab Roy visited ENS Lyon, France only in the year 2022.

Glimpses from his visit...



We are grateful to you E your family!



We express our heartfelt gratitude for your continued and generous support to IIT Madras throughout the years. We trust that you take great pride in your bond with IIT Madras and the unwavering dedication it has demonstrated towards academic and research excellence since the time of your association.

Your invaluable contributions, alongside the support of your family, have played a pivotal role in facilitating this remarkable growth. We are privileged to have you and your family walking with us along this journey. We extend our best wishes to you and your family. We thank you for your continued support to your alma mater.



October 2023