

Mr. Yashpal S Sodhi & Mrs. Parminder Sodhi

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

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!





Mr. Yashpal S Sodhi

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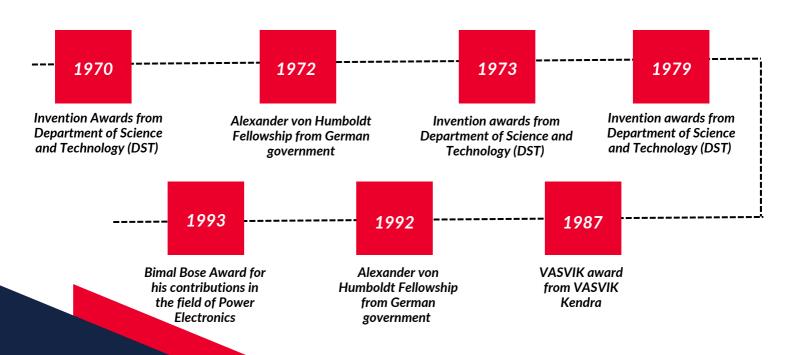
Mr. Yashpal S Sodhi, a respected graduate of the Indian Institute of Technology Madras, earned his Bachelor's degree in Electrical Engineering between 1965 and 1970. Currently residing in Virginia, USA, Mr. Yashpal has embarked on a notable journey marked by achievements and significant contributions.

With a substantial portion of his career devoted to the U.S. Navy, Yashpal concluded his service as the Manager of Submarine Power Systems. His proficiency and unwavering dedication in this role have left an enduring impact on the field. This commitment to service is also reflected in his spouse, Mrs. Parminder Sodhi, who retired as a Colonel from the U.S. Army.

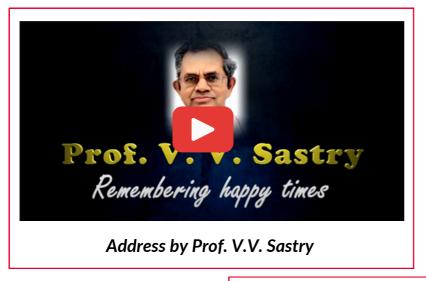
Mr. Yashpal's benevolence and dedication extend beyond his professional pursuits. His involvement in the V V Sastry Institute Chair underscores his dedication to enhancing education and research. From his academic years at IIT Madras to his distinguished service in the U.S. Navy, as well as his charitable contributions, Mr. Yashpal emerges as an outstanding alumnus who continues to positively influence the world around him.

As part of thanking the institution from where he graduated and honouring his teacher, Prof. V.V. Sastry, Retired Professor of IIT Madras, the Chair has been established in Jun 2021. Dr. Sastry V Vedula was associated with Indian Institute of Technology since 1968 for 3- decades during which he had been a Professor of Electrical Engineering between 1980 and 1998. He won various national awards such as Inventions awards of NRDC and VASVIK award and had the international recognition as a Humboldt Scholar from German Government.

Awards and Recognitions:



Glimpses from V.V. Sastry Institute Chair Launch





V.V. Sastry Institute Chair Launch – 19th June 2021

Chair Occupant of V.V. Sastry Institute Chair

The Chair occupant of V.V. Sastry Institute Chair is Prof. Amitava DasGupta

Education Background:



PhD (IIT Kharagpur)

M.Tech, Electrical Engg. (IITM)

B.E., Electronics and Telecomm. Engg. Jadavpur University, Kolkata

Brief about experience:



Advanced and compact models for present generation MOSFET and HEMT devices

MEMS based devices

- RF MEMS devices such as switches and resonators
- Sensors such as pressure sensors and accelerometers
- Energy harvesters
- Semiconductor technology
- Silicon devices

Current Research:

Broad Area of Research

Compact models for GaN HEMTs (Research Centre on GaN Research and Development)

Developing a charge based comprehensive compact model for GaN HEMTs for DC, small signal and transient applications

GaN based technology for RF Power amplifiers and DC-DC converters (Research Centre on GaN Research and Development)

Developing Enhancement mode GaN HEMT technology for microwave monolithic integrated circuits (MMICs) Single Pole Double Throw (SPDT) RF MEMS switches operating in Ku band (12 – 18 GHz) (ISRO)

Developing
Enhancement mode
GaN HEMT technology
for microwave
monolithic integrated
circuits (MMICs)

MEMS based piezo thin film energy harvesters (DRDO)

Developing energy harvesters for underwater applications RF MEMS based nanoresonators for RF oscillators (Ministry of Electronics and Information Technology)

Developing oscillators at 1 GHz by combing MEMS nanoresonators and CMOS amplifiers

Student contributions (who were involved in Research)

PhD guidance:

• 13 completed, 5 ongoing

MS (by research):

• 18 completed, 3 ongoing

Honours, Awards & Affiliations:

- Fellow, Indian National Academy of Engineering (INAE)
- Chair Professor, IIT Madras
- Member, IEEE

Plans ahead:

Develop Research Centre on GaN Research and Development into an internationally recognized Centre of Excellence

Thank you note from Chair Occupant

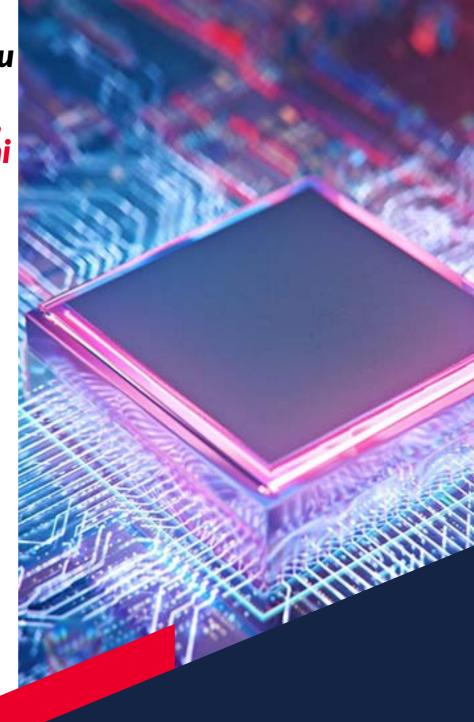
I thank Mr. Yashpal Sodhi and Mrs. Parminder Sodhi for instituting this chair in honour of Prof. V.V. Sastry. I also thank IIT Madras for choosing me as the first recipient of this chair. I thank my teachers, colleagues and students for guiding me and providing necessary support

We are grateful to you

Mr. Yashpal S Sodhi, Mrs. Parminder Sodhi & 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 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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