

# 2023-24 Prof. Amar G. Bose Research Grants

**RFP: October 25, 2023**

**Proposal Submission Deadline: December 15, 2023 5:00 p.m. EST**

**Summary:** The Institute is pleased to announce that proposals are solicited this year for the Prof. Amar G. Bose Research Program. Background and details on the program follow below. Additional information may be found at the program's web site (<https://bosefellows.mit.edu/>), including descriptions of previously funded projects (<https://bosefellows.mit.edu/projects/>) and a summary of the details of this request for proposals (<https://bosefellows.mit.edu/program/>).

Proposals are solicited from MIT faculty members to explore research ideas that are difficult to fund through traditional avenues; proposals for up to \$500K in funding over a three-year effort, including overhead, are solicited; proposals are due by 5 p.m. EST on Friday, December 15, 2023. Additional details are provided in the narrative below.

## Background

Prof. Bose once asked his mentor, the brilliant mathematician Norbert Wiener, how he accounted for the impact he had on such diverse fields. The answer was two words: *'Insatiable curiosity.'* That same force drove Prof. Bose's research career into such varied areas as non-linear system theory, power electronics, automobile suspensions, and, of course, acoustics.

Prof. Bose's exploration into new and sometimes controversial areas was greatly aided by the availability of unencumbered research funding, first through the umbrella funding that the Research Laboratory of Electronics at MIT provided early in his career, and later from the profits that Bose Corporation reinvested in research every year. This highly flexible funding had important characteristics that were key enablers for his research: it was not subject to committee approval, it was not encumbered by the requirement of short-term deliverables, and prior experience in the field was not a prerequisite for pursuing it.

Outside Prof. Bose's former office at Bose Corporation, engraved in the wall, was a quote from Belgian Nobel Laureate Maurice Maeterlinck:

*"At every crossway on the road that leads to the future, each progressive spirit is opposed by a thousand men appointed to guard the past."*

Any truly groundbreaking research will likely be perceived initially as risky, inappropriate, or unrealistic by many of the established practitioners in the field.

Historically, many innovative and groundbreaking advances have come from people outside of or on the periphery of the particular field, since they are often able to bring a fresh perspective to the problems and ideas. But much of the research funding available today requires a strong track record in the field of interest, an idea or problem statement the relevance of which is readily understood by and meets the approval of most colleagues in the field, and a relatively clear sense in advance of the expected impact of the research. Of course, both types of research and funding can stretch the boundaries of knowledge and deepen our understanding of it.

## **The Prof. Amar G. Bose Research Grants**

The primary purpose of the Prof. Amar G. Bose Research Grants is to invest in the development of visionary and intellectually adventurous researchers. The Grants are intended to allow such individuals to pursue research ideas and directions that are difficult to fund through traditional sources and to provide recipients the opportunity to courageously explore areas outside their normal research domain.

**Who may apply?** The grants are open to tenured and tenure-track MIT faculty. The grants are available for research in any discipline, across all five schools of the Institute and the College. In addition to proposals from individual faculty, proposals from teams of faculty members and cross-departmental and cross-school collaborations are especially encouraged. In reviewing applications, the primary criteria for assessment will be:

- the passion and vision of the researcher(s) in articulating a challenging problem, and an approach to it;
- the likelihood that the research would **not** be funded through traditional means;
- the boldness of the researcher(s) in choosing the direction (especially projects that branch into new directions that are not straightforward extensions of his/her current or past work); and
- the potential of the proposed research to have significant impact on the researcher(s) him- or herself (e.g., in expanding the research horizon of the faculty member into new areas).

Whether or not the proposed research agenda is ultimately successful or has broad impact on a field is not a key criterion. The primary intention and goal of the program is that the opportunity for exploration provided by these grants will impact the researcher(s) in important and significantly positive ways, that are likely to be a benefit in future research endeavors: by encouraging non-traditional exploration of ideas, by inspiring researchers to challenge conventional wisdom, and by fostering curiosity about new fields and ideas. Fundamentally, we are seeking applications that clearly reflect innovative thinking, an intellectually adventurous spirit, curiosity and enthusiasm. This combination is sure to lead to interesting results.

**How to apply?** Interested applicants should submit a short (**4 pages or less, 12pt font**) proposal outlining their vision, ideas, and plan. We are not looking for a traditional research plan with milestones and deliverables. The applications should clearly communicate why the researcher is passionate about the plan, how it differs from their current and previous research efforts, and why it is not likely to be funded from traditional sources. The grants will provide up to three years of funding, so as to remove the pressure for short-term results that are traditionally necessary to obtain continuing funding increments. Proposals will be reviewed by a panel covering a wide range of disciplines, so a clear articulation of the goals of the proposal is more critical than deep technical background material. A brief, high-level budget (totaling up to \$500K, including overhead, spent over a period of up to 3 years) and a 2 page CV, that may include a listing of up to 5 publications of relevance to the proposed project., should be appended to the proposal.

**Where to apply?**

Applications should be submitted in PDF format to [bose-grants@mit.edu](mailto:bose-grants@mit.edu) by 5 p.m. EST on December 15, 2023. The Chancellor for Academic Advancement organizes the committee that selects grant recipients. Decisions will be announced in the spring of 2024.

**What are the responsibilities of Bose Research Grant Recipients?**

Grant recipients will be expected to provide a summary of the topic of their project after receipt of the funding and to provide a summary of the results of their project upon completion. Recipients will also be requested to participate in occasional meetings of current and previous Bose awardees.

*Bose reminds us that we could all afford to be much more skyward-looking, far-fetched and curious, and that we could all believe more strongly in our own potential to create.*

*–Tom Clynes, Popular Science*