

Caltech | Funding Memo

Title: Samsung Advanced Institute of Technology GRO - 2023

Funding Agency: Samsung Electronics

External Deadline(s):

08/22/2023 12:00 PM PDT (Full Proposal)

Cognizant Office: OTTCP/OSR

Description:

The SAMSUNG Global Research Outreach (GRO) Program is an important part of growing SAMSUNG's academic research engagement and collaboration platforms.

World-class university researchers have been annually invited since 2009 to propose novel research ideas and to work with our R&D teams to foster technological innovation. This has resulted in actively collaborative relationships with over 150 leading universities worldwide. Selected GRO projects will be funded with one year. This project may be extended up to three years, based on annual research outcomes and necessity for further research partnership determined by SAMSUNG. Joint research proposals from multiple universities are welcome and acceptable.

The GRO Program represents an opportunity for SAMSUNG and universities to build a mutually beneficial research relationship and we look forward to your participation.

A PDF version of 2023 GRO brochure is available for [download](#).

Frequency: Typically annual

Total Award: \$150,000

- The award amounts are dependent on the research theme and vary from \$100,000 - \$200,000 per year including overhead.
- Renewals possible; up to three years
- Overhead will be assessed at the full F & A rate. If proposal is selected, applicants must work within their division to account for necessary overhead.
- The awards exclude postdoc salaries.
- Applicants shall submit the following two(2) documents.
 - Research Proposal: Proposal Guide & Format
 - GRO RA Acceptance Letter: Signed GRO RA Acceptance Letter (to be reviewed and signed by Caltech's OSR)
- PROCESS: https://www.sait.samsung.co.kr/saithome/about/collabo_process.do

Indirect Costs:

- **Caltech's minimum overhead rate is based on the award's annual gross funding. Please refer to the [FY23 Annual Rate Memo](#) for applicable minimum overhead**

requirements. Applicants must work within their division to account for the required overhead via an approved MORA form.

Discipline(s): Biology and Biological Engineering; Chemistry and Chemical Engineering; Engineering and Applied Science

Eligibility: Research Staff, Tenure-Track Faculty, Tenured Faculty

Proposals and awards for this program will be managed by OSR. The application should be submitted through the Division Office to OSR accompanied by a DAF; once OSR receives the required internal approvals, OSR will be able to sign the GRO RA Letter for the PI to submit. Overhead will be assessed at the full F & A rate.

Research Areas of Interest:

2023 GRO Research Topics:

No	Research Theme	Research Sub-Theme
1	Machine Intelligence	Bayesian Optimization via Generative Model
		Trustability & Controllability of Large Language Model
		Intelligent RAN Technology for nextG Cellular Networks
		Generative AI and LLM
		Controllable 2D/3D Generative Model
2	Quantum Computing	Quantum Computing Algorithms
3	New Computing	Reconfigurable AI compiler and design space exploration
		Power efficient HPC System S/W and H/W
4	New Memory	New memory platform
		New storage for large machine learning training
5	Semiconductor Process Technology	3D Metrology, Inspection for CD, and material analysis
		New AI Technology for Semiconductor Metrology and Inspection
		Heterogeneous 3D Integration(Beyond Si and Beyond III-V)

		Optics and Photonics
		Advanced packaging
6	Semiconductor Equipment	Athermal Optics design, EUV mirror inspection technology, Free mirror
		Laser Produced Plasma simulation for EUV Source Improvement
		Cryogenics(Stirling cooler for semiconductor)
		Machine Learning-assisted Plasma Processing
7	Semiconductor Materials	Fundamental Tech. for Semicon. Materials
		Methodologies for high quality SiC wafer
8	6G Communication	High efficiency PA
9	Mobile Solution	Mobile IP Solution
		Mobile Neural Graphics
10	Future Mobility	Smart Vehicle E/E Architecture
		Autonomous Driving
11	Environmental Technology for Sustainability	CO2 capture and utilization
		Plasma-Catalysis

Post-Award Obligations:

TBD

Recent Caltech Recipients:

EAS Daraio, Chiara

EAS Gharib, Morteza

Guidelines & Other Information:

For more questions, please contact below.

https://www.sait.samsung.co.kr/saithome/about/collabo_overview.do

America : gro.usa@samsung.com

Apply: https://www.sait.samsung.co.kr/saithome/about/collabo_apply.do

Documents:

[Samsung_GRO_2023.pdf](#)

Pre-Proposal Requirements:

Applicants shall submit a research proposal and signed RA acceptance letter (please contact Caltech's OSR). All documents are only accepted via the GRO submission website prior to the deadline. After the deadline, the applicants are not able to submit, amend or modify proposals.

Opportunity ID: 1598