



Ship Structure Committee

2023 Focus Areas for Project Idea Solicitation

2023 Focus Area	Examples
I. Structural Monitoring, Longevity, and Lifetime Extension	Corrosion prevention, monitoring, assessment, inspection Instrumentation for structural health monitoring system; data analysis methods; “digital twin” Inspection techniques for minor structure, e.g. watertight doors, ventilation ducts, and hatches
II. Arctic Construction, Operations, Technology and Effects	Structural materials for polar operation, with respect to strength and temperature Efficient ice strengthening in structural design Evaluation/prediction of ice loads Operational guidance methodologies for ships in ice based on structural assessment
III. Novel Materials and Manufacturing	Vessel light-weighting; use of composites in structural design Materials associated with alternative fuels (e.g. hydrogen, liquefied gases) Use of corrosion-resistant steels (e.g. COR-TEN) in marine application
IV. SSC Follow-Up Report	Follow-on report to existing, outdated SSC report

To submit a research idea, please use the template available on the Ship Structure Committee website, www.shipstructure.org, and email to: SSC@USCG.mil