

**Call for R&D Proposals
Sept 25 to Dec 2025**

S.No	Scheme	Agency	Deadline	Link
1	Indo-Sweden call on Technology Feasibility under Industry Transition Partnership Platform for Decarbonisation of Steel and Cement Sectors	DST	September 1, 2025	View / Apply
2	ICMR Call for Proposals on Centre for Advanced Research (CAR) Under the Extramural Research Program, ICMR - 2025	CSIR	September 1, 2025	View / Apply
3	Call for proposals under Prime Minister Professorship for catalysing world class research and innovation in emerging institutions	ANRF	September 1, 2025	View / Apply
4	EU-India Coordinated Call on Waste to Renewable Hydrogen	MNRE	September 2, 2025	View / Apply
5	INDIA-JAPAN Cooperative Science Programme (IJCSP) Call for Proposals-2025	DST	September 3, 2025	View / Apply
6	JSPS Bilateral Research Projects/Seminars	DST	September 3, 2025	View / Apply
7	European Union (EU)- India Trade and Tech Council (TTC) Call for Waste to Hydrogen	MNRE	September 5, 2025	View / Apply
8	Convergence Research Centres of Excellence (CoE): Bridging Social Sciences, Humanities, Science & Technology	ANRF	September 9, 2025	View / Apply
9	CSIR-DAAD - Call for Proposals for the Bilateral Exchanges of Scientists/Academics - 2025	CSIR-DAAD	September 10, 2025	View / Apply
10	Call for Proposal (2025-26) In Quantum Biotechnology for Team Building, Networks & Clusters Development	DBT	September 12, 2025	View / Apply
11	EU-India Cooperation on Cumulative Impacts of Marine Pollution on Marine Organisms and Ecosystem	MoES	September 23, 2025	View / Apply
12	Call for Research Proposals under India-EU co-operation on Cumulative Impacts of Marine Pollution on Marine Organisms and Ecosystems (HORIZON-CL6-2025-01-ZEROPOLLUTION-05)	CSIR	September 23, 2025	View / Apply
13	Indo-French Postdoctoral Research Programme for Women in Science (PROWIS-I)	CEFIPRA	September 23, 2025	View / Apply
14	Indo-French Visiting/Mobility Programme for Women in Science (PROWIS-II)	CEFIPRA	September 23, 2025	View / Apply
15	The Horizon Europe EU Space Research Call 2025	EURAXESS	September 25, 2025	View / Apply
16	Call for Investigator-Initiated Research Proposals for First in World Challenge Grants (2025)	ICMR	September 30, 2025	View / Apply
17	Call for proposals for GIAN phase V	GIAN	September 30, 2025	View / Apply
18	DST-INRIA Targeted Programme	CEFIPRA	October 16, 2025	View / Apply
19	India- European Union Cooperation for enhancing Research and Innovation Capabilities	CSIR	October 17, 2025	View / Apply

20	CSIR – EU Co-Funding Partnership under the EU Framework Programme “Horizon Europe- Marie Skłodowska-Curie Actions (MSCA) Staff Exchanges - 2025”	CSIR	October 17, 2025	View / Apply
21	India-Canada Collaborative Industrial R&D Programme	TDB	October 17, 2025	View / Apply
22	Call for Coordinated Research Projects (CRPs)-2025	BRNS	November 13, 2025	View / Apply
23	India-Sweden Collaborative Industrial Research & Development Programme - Request for Proposal (RFP) 2025	DST	November 14, 2025	View / Apply
24	Carl-Zeiss-Humboldt Research Award	CSIR	December 24, 2025	View / Apply
25	Scientific Exchange Grants to facilitate collaborations and enhance research capabilities in Life Sciences	EMBO	Rolling	View / Apply
26	Open call for Indo-German Bilateral Workshops	IGSTC	Rolling	View / Apply
27	Advancing R&D and Accelerating Innovation in Indian Iron and Steel Sector (jointly with industry)(new scheme launched on Mar 12, 2025)	SRTMI	Rolling	View / Apply
28	Call for proposals for building India’s foundational AI models	MIETY	Rolling	View / Apply
29	Seminar/Symposia	SERB	Rolling	View / Apply
30	Travel Grant	NBHM	Rolling	View / Apply
31	Visiting professorship	NBHM	Rolling	View / Apply
32	Research projects	NBHM	Rolling	View / Apply
33	Symposiums and Conferences	BNRS	Rolling	View / Apply
34	Women Involvement in Science and Engineering Research (WISER)	IGSTC	Rolling	View / Apply
35	Small Immediate Need Grants (SING)	IGSTC	Rolling	View / Apply
36	Indo-German Funding Opportunity for Joint Research Projects in the field of Social Science Research	ICSSR	Rolling	View / Apply
37	International Travel Scheme (ITS)	ANRF	Rolling	View / Apply
38	Hands-on training/workshops and webinars	BIRAC	Rolling	View / Apply
39	EIR - Entrepreneur in Residence PRAYAS - Promotion and Acceleration of Young and Aspiring technology entrepreneurs DIAL - Dedicated Innovation Accelerator SSS - Seed Support System	IBITF	Rolling	View / Apply

40	Fund for Improvement of S&T Infrastructure (FIST)	DST	Rolling	View / Apply
41	SMALL IMMEDIATE NEED GRANTS	IGSTC	Rolling	View / Apply
42	DST DFG joint call on International Research Training Groups (IRTG)	DST	Rolling	View / Apply
43	NATIONAL PROGRAMME "Aero Stealth Technologies through Academia (ASTA)"	DRDO	Rolling	View / Apply
44	Transforming Technology Solution through Advanced Materials and Critical Minerals	IUSSTF	Rolling	View / Apply
45	Proposal for C-DOT's Quantum Key Distribution (QKD) Solutions for Universities	C-DOT	Rolling	View / Apply
46	SPARC Program	MoE	Rolling	View / Apply
47	SMALL IMMEDIATE NEED GRANTS	CSIR	Rolling	View / Apply
48	The EMBO Scientific Exchange Grants aim to facilitate collaborations and enhance research capabilities.	CSIR	Rolling	View / Apply
49	Call for proposal from Ministry of Steel	CSIR	Rolling	View / Apply

Funding Agencies for Research Grants

[Anusandhan National Research Foundation \(ANRF\)](#)

[Atomic Energy Regulatory Board \(AERB\)](#)

[Bhabha Atomic Research Centre \(BARC\)](#)

[Centre for Development of Advanced Computing \(CDAC\)](#)

[Centre for Development of Telematics](#)

[Coal India Ltd.](#)

[Council of Scientific & Industrial Research \(CSIR\)](#)

[Defence Research & Development Organisation \(DRDO\)](#)

[Department of Atomic Energy](#)

[Department of AYUSH](#)

[Department of Biotechnology \(DBT\)](#)

[Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers](#)

[Ministry Of Earth Sciences](#)

[Department of Science & Technology \(DST\)](#)

[Deutsche Forschungsgemeinschaft \(DFG – German Research Foundation\)](#)

[Indian Council of Agricultural Research \(ICAR\)](#)

[Indian Council of Medical Research \(ICMR\)](#)

[Indian Council of Social Science Research \(ICSSR\)](#)

[Indian National Science Academy \(INSA\)](#)

[Indian Space Research Organisation \(ISRO\)](#)

[Indo French Centre for the Promotion of Advanced Research \(IFCPAR\)](#)

[Indo-US Science & Technology Forum](#)

[Ministry of Micro, Small & Medium Enterprises](#)

[Ministry of Electronics and Information Technology, Government of India](#)

[Ministry of Defence](#)

[Ministry of Environment, Forest and Climate Change](#)

[Ministry of Micro, Small and Medium Enterprises](#)

[Ministry of New and Renewable Energy \(MNRE\)](#)

[Ministry of Petroleum and Natural Gas](#)

[Ministry of Power](#)

[Ministry of Road Transport & Highways](#)

[Ministry of Rural Development](#)

[Ministry of Textiles](#)

[Ministry of Housing and Urban Affairs](#)

[Naval Research Board \(NRB\)](#)

[Oil & Natural Gas Corporation Ltd \(ONGC\)](#)

[Research Boards, DRDO, Ministry of Defence, Government of India](#)

[Science and Engineering Research Board \(SERB\)](#)

[Tata Institute of Fundamental Research](#)

[Technology Information, Forecasting & Assessment Council \(TIFAC\)](#)

[UK India Education and Research Initiative \(UKIERI\)](#)

[University Grants Commission](#)

Thrust Areas of Research (GTMAP)

1. Materials Technologies & Potential Research Areas

GTMAP Programme, under the aegis of AR&DB solicits project proposals in the Core Areas and broad scope listed above. Materials technologies and potential research areas that have been identified as of direct and immediate relevance for project formulation may include, but not limited to, the following:

No.	Materials Technologies & Potential Research Areas
1	<p data-bbox="212 674 1484 730">Single Crystal Turbine Blades & Vanes(Tentative alloy CMSX4)</p> <ul data-bbox="212 737 1484 1339" style="list-style-type: none"> • Characterisation of mechanical properties & microstructure <ul data-bbox="261 779 1484 856" style="list-style-type: none"> • Assessment of influence of crystal misorientation and low angle grain boundaries and on mechanical properties • Understanding thin section effect on properties of DS & SX alloys used in airfoils • Process modelling related to directional solidification and SX castings process • Newer alloy compositions based on modelling / experimental approaches • Development and assessment of high temperature ceramic core materials and cores • Development of suitable brazing materials and processes for root and tip brazing of turbine blades and pairing of nozzle guide vanes and characterisation of brazed joints – preferably on modelling driven experimental approach for selection of brazing materials and process parameters • Development and characterisation of CBN hard facing of shroud tips in shrouded blades • Process development and characterisation of laser shock peening for fir tree regions of turbine blades • Machinability studies – Grinding, Laser Drilling and EDM.
2	<p data-bbox="212 1346 1484 1402">Turbine Discs(Target: P/M Superalloys)</p> <ul data-bbox="212 1409 1484 1671" style="list-style-type: none"> • Studies on powder characteristics and their influence on sintering and resultant microstructure and mechanical properties of P/M superalloys • Role of super and sub solvus solutionising heat treatments on mechanical properties • Laser shock peening of bolt holes and fir tree slots • Development & characterisation of aero engine rotor forgings with dual microstructure (Ti alloys) or dual grain size (Ni alloys) • Machinability studies on P/M Disc alloys.
3	<p data-bbox="212 1677 1484 1734">Metal Matrix Composites(Target: SiC-Ti)</p> <ul data-bbox="212 1740 1484 1881" style="list-style-type: none"> • Development of technologies for SiC fibers for Ti-MMCs • Synthesis of the 25-30 micron thick carbon core fibre • Processes for deposition of SiC on Carbon Fibre (~50-70 microns radially) with emphasis on interface properties, stoichiometry, growth kinetics, uniformity etc.

	<ul style="list-style-type: none"> • Processes Titanium alloy deposition (Ti-64, Ti-6242, etc) on SiC fiber (~50-70 microns radially) with emphasis on interface characterisation, compositional uniformity, micro-structural aspects etc. • Scheme for draping of Ti-MMC fibers, graphite tooling, stacking methodologies etc. • Diffusion bonding of Ti-MMC fibers • Blade-MMC Ring Joining Technology preferable through solid state welding processes like linear friction welding • Micromechanics of MMCs with focus on load transfer at interfaces: modelling and experimental verification • Macro Mechanics of MMCs: Assessment of aspects like stacking sequence, volume fraction etc. through modelling and experimental approaches. • Numerical simulation and experimental testing of MMC rings.
4	Polymer Matrix Composites <ul style="list-style-type: none"> • Development high temperature resins for PMCs • Development of processing technologies for PMC components and characterisation of properties
5	Ceramic Matrix Composites (Target: C _r -SiC) <ul style="list-style-type: none"> • Development of joining technology and mechanical and micro-structural characterisation of joints • Machinability studies on composites • Methodologies for non-destructive evaluation of composites
6	Additive Manufacturing (AM) (Target: Superalloys & Ti alloys) <ul style="list-style-type: none"> • Component specific development of processing techniques and optimisation of process parameters • Characterisation of microstructure and mechanical properties of AMd nickel base superalloys and titanium alloys • Feasibility of realising ceramic cores for investment castings through AM route • AM as applicable for repair of gas turbine components • AM of Titanium Aluminide alloys • Machinability studies with focus on surface finish and dimensional accuracies
7	Joining/Repair (Target: Superalloys, Ti alloys & alloy steels) <ul style="list-style-type: none"> • Assessment of fatigue and creep behaviour of welded joints – Process-structure-property correlations • Numerical and experimental simulation and validation of welding for prediction of HAZ, RS, microstructure and mechanical properties • Blisk repair and associated technologies both Ni and Ti alloys • Rotary friction welding for gas turbine components • Joining technologies for composite materials • Repair technologies for gas turbine components
8	Titanium Aluminides (Target: Last stages of compressor blades) <ul style="list-style-type: none"> • Structure-property correlation studies on wrought alloys • Studies on machining aspects of wrought alloys

	<ul style="list-style-type: none"> • High velocity foreign object damage of wrought titanium aluminides • Machinability studies on titanium aluminides.
9	<p>Coatings:</p> <p>The goal of these projects should be to enable better performance (higher operating temperatures, longer life and better tolerance to adverse chemical environments) of different sections of the gas turbine such as the fan, compressor, combustion chamber, high and low pressure turbine.</p> <ul style="list-style-type: none"> • Coatings for <ul style="list-style-type: none"> • Sliding wear and Erosion resistance (RT-600°C) • Low friction (RT-600°C) • Abradable liners (RT-1300°C) • Oxidation resistance (RT-1500°C in the presence of oxygen, Pt substitutes) • Corrosion resistance (RT-1500°C in salt, CMAS attack, role of V and S) • Thermal insulation (new top coats for longer life and higher operating temperatures). • Proposals can address <ul style="list-style-type: none"> • Synthesis (e.g., Plasma / Thermal Spray, E-beam PVD, Sputtering / Arc Evaporation, Pack Cementation, Solution Deposition) • new architectures e.g., graded and multilayer coatings in top coats • Microstructural and other characterisation • Corrosion / Oxidation (and associated thermodynamics, kinetic models, phase stability) • Mechanical reliability (wear, toughness, failure modes, different types of loading, thermal stress at high T and under simultaneous chemical attack, oxidation-creep interactions, using innovative local testing geometries and in-situ diagnostics; mechanical property degradation on sustained use, particularly oxidation-wear or corrosion-wear synergy) • Burner rig experiments in air and salt environments • Modeling (thermomechanical, damage evolution) • Designing new coatings (chemistry, microstructure) • Non-destructive evaluation (methods, damage detection) • Lifetime Prediction.
10	<p>High strain rate behaviour</p> <ul style="list-style-type: none"> • Property evaluation for materials prone for Foreign Object Damage (FOD) due to bird impact on frontal components, blade out on casing etc.
11	<p>Novel manufacturing processes</p> <ul style="list-style-type: none"> • Chemical / Electro-chemical milling of special features on gas turbine components – process optimisation and characterisation • Abrasive water jet machining for blade profiles, blisk blanks of superalloys, ceramics and composites and process optimisation • Ultrasonic machining, Hybrid machining etc. For gas turbine components • Flow forming of hollow shafts in superalloys – process optimisation, simulation and modelling • Abrasive flow forming, Magnetic pulse forming etc. For gas turbine components

12	<p>Laser processing</p> <ul style="list-style-type: none"> • Laser surface treatment, hardfacing, cladding, drilling, machining and welding of gas turbine components.
13	<p>Materials Modeling & Simulation: The goal of these projects should be to enable faster materials discovery, development or application by increasing modeling and simulation based decisions in every aspect of the material application cycle ranging from melting and processing to microstructure evolution and related mechanical behavior. Multi institutional collaborative proposals that address different aspects of the proposal are encouraged. Experimental validation of existing models is also encouraged.</p> <p>Generic Problems First principles based prediction of</p> <ul style="list-style-type: none"> • Compliances as a function of temperature and composition in bcc Ti, hcp Ti, fcc Ni, Ni₃Al • CTE as function as a function of temperature and composition in fcc Ni, Ni₃Al • Multicomponent diffusion in hcp and bcc Ti, fcc Ni, Ni₃Al <p>Titanium Alloys</p> <ul style="list-style-type: none"> • Improved thermodynamic databases for critical alloy systems to be defined in consultation with incorporation in ThermoCalc • Modeling VAR and related micro-segregation • Physics based constitutive equations for hot flow behaviour, microstructure evolution incorporating recrystallization in two-phase alloys • Phase-field models for alpha precipitation + transformation texture in two-phase alloy based on variant selection • Dislocation core structure in alpha Ti as a function of temperature and composition with emphasis on O and Al effects • Crystal plasticity based tensile stress-strain behavior in two-phase systems • Modelling of α-precipitation and transformation texture evolution in two-phase titanium alloys • Slip Transfer across interfaces in Titanium Alloys • Crack Evolution in Titanium Alloys • Local micro-mechanical fields in Titanium Alloys through crystal plasticity approach <p>Nickel Base Superalloys</p> <ul style="list-style-type: none"> • Dendrite arm spacing models, defect models (Freckles), Micro-segregation models and micro-segregation homogenization models • Potential development (Ni-Cr) (Ni-Ta) (Ni-Co) (Ni-Ti) (Ni-Al) • First principles based fault energies in in Ni and Ni₃Al as function of alloying additions • Gamma/gamma' interface composition and stress profile as a function of alloying additions • Modeling dislocation motion in stress and stress gradients with respect to gamma channels in Ni Base superalloys • Microstructure evolution in nickel base superalloys: Effect of alloying additions, interface composition and stress profiles

	<ul style="list-style-type: none"> • Cavity growth during in creep in nickel base superalloys <p>Others</p> <ul style="list-style-type: none"> • Modelling of microstructure and stress evolution during joining / repair of aeroengine components • Development of interatomic potentials of binary alloys as inputs for molecular dynamics simulations • Modelling and simulation of AM processes
14	<p>Sensors:</p> <p>The projects may focus on developmental activities involving high temperature sensor materials, appropriate sensor design practices, processing techniques for sensor embedment () (on Ni / Ti based alloys and C_r-SiC substrates) assessment of sensor response and life under harsh environments and advanced remote signal/data acquisition. They could be developed as conformal-thin films for rotating parts or conventional-bulk sensors for static parts of the engine and be characterized for their response in terms of sensitivity, stability over extended exposure to intended temperatures and environments, creep, fatigue, thermal fatigue, wear/erosion, resistance to hot gases etc. Typical service temperatures could be up to 350°C in the front section of the engine and up to 700°C in the mid-sections o the engine and up to 1100°C in the rear sections of the engine.</p>
	<p>Development of sensor materials and sensors targeting sensing of :</p> <ul style="list-style-type: none"> • Structural loads at bolt joints between the casing flanges & Rotor shaft flanges • Interface dynamic loads at Blade root / Disc, Tip shroud interface of turbine blades • Full field surface pressure on the aerofoils and vanes • Fluctuating Temperature measurement • Tip gap measurement • High frequency pressure / transient data at the hypodermic tip ends in secondary air zones of engine • Axial gap between static and rotating parts during engine operation • Mild rubs at blade tips and labyrinth seal tips • Metallic and non-metallic debris particles in the flow path

2. Steps in Submitting a Project Proposal

1. Submit a short write-up (not exceeding 4 pages) by e-mail to gtnmap@dmrl.drdo.in. The write-up should contain the following:
 - Title of the proposal write-up
 - Name, affiliation and contact details (including e-mail and telephone numbers) of the investigator
 - Short background and introduction
 - Objectives and research deliverables

- A brief description of the experimental and / or modeling tools that will be used
 - Broad details of specific infrastructure requirement that need to be established
 - A budget estimate indicating the major heads of expenditure viz., Research Staff, Capital Equipments and Consumables
2. The short write-up will be examined by the concerned PARC. The investigator will be intimated the views / suggestions / recommendations of the PARC. If required, the investigator may be provided with details of a contact person in GTRE/DMRL for detailed discussion and finalization of specifics. Only after the short write-up is accepted by the PARC, a full project proposal is required to be submitted by the investigator. A format for the full proposal will be provided at that stage.
 3. Subsequently, a soft copy of the full project proposal is required to be submitted by the investigator by e-mail to gtmap@dmrl.drdo.in.
 4. The full project proposal will be reviewed by the concerned PARC. Views / suggestions / recommendations of the PARC will be intimated to the project investigator. The project investigator may also be called for a presentation of the project proposal to the PARC. If found necessary, based on the suggestions of the PARC, project proposal may have to be revised and resubmitted to PARC.
 5. Once a full project proposal is considered acceptable, PARC will make a recommendation on the project to the APRT of GTMAP for a final decision. Based on the recommendation of APRT, AR&DB will process the finalized project proposal for sanction.

Note: While conceptualizing short write-ups and full project proposals, investigators may interact with Gas Turbine Research Establishment (GTRE), Bangalore or Defence Metallurgical Research Laboratory (DMRL), Hyderabad to obtain first hand information about the critical issues of materials application in gas turbine and its operating environment. Linkages with projects already completed / running under GTMAP programme are desirable and investigators are encouraged to interact with their colleagues working in associated areas. Investigators may contact Co-ordinator, GTMAP Programme for necessary coordination on these aspects. Multi institutional collaborative proposals that address different aspects of the proposal are encouraged.