भारत सरकार
अन्तरिक्ष विभाग
इसरो उपग्रह केन्द्र
पोस्ट बॉक्स नं. 1795, हवाई पत्तन मार्ग
विमानपुरा डाक घर, बेंगलूरु - 560 017. भारत
दूरभाष :
फेक्स :

इसरो isro

Government of India
Department of Space
ISRO Satellite Centre
Post Box. No. 1795, Airport Road, Vimanapura Post
Bangalore - 560 017. India
Telephone :
Fax :

Ref: ISAC/PPEG/STC-RESPOND/2014

January 10, 2014

To

The Principal / Dean of Research
Indian Institute of Technology Delhi

Dear Sir,

Sub: Invitation for Research proposals under RESPOND Programme – reg.

ISRO Satellite Centre is the lead centre for satellite technology and its primary responsibility is to carryout the design, development, fabrication, testing, integration and in orbit commissioning of satellite systems through time bound projects.

Indian Space Research Organization (ISRO) has evolved a programme through which financial support is provided for conducting Research and Developmental activities related to Space Science, Space Technology and Space Application. This programme of Research sponsored by ISRO is called RESPOND.

With reference to the above, I invite all the Universities and Institutions to participate in R&D programmes of ISRO Satellite Centre, Bangalore through our RESPOND programme.

Universities / Institutions may submit their research proposals in fields / areas relevant to the activities of ISAC. A few of the interested topics are enclosed in the Annexure. However, you may submit your own original proposals of research which may be of interest to us for review and approval.

You may prepare the research proposal in the required format and five copies can be sent to the below given address.

The Director
ISRO Satellite Centre
P B No. 1795
Old Airport Road
Vimanapura P.O.
Bangalore – 560 017

Please note that the Principal Investigator should be a full time employee of the Institution. For further communication, you may please contact the undersigned or Shri Rathnakara, RESPOND Co-ordinator, ISAC (Email: rkar@isac.gov.in). For more details, visit www.isro.gov.in>ISRO<sponsored research>.

Dean (R&D) e-mail to all faculty (both pages) 25/3/14

AR & Bhagat 22/3/14

(S V SHARMA)
Group Director, PPEG

With Best Wishes for the Happy and Prosperous New Year 2014

RESEARCH AREAS — ANNEXURE – A

1. Multifunction Structure
2. Micro propulsion / Electric propulsion
3. Space Docking / Robotics
4. Advanced materials with higher stiffness and strength
5. Advanced data compression techniques
6. Advanced composite materials
7. SMART materials
8. Smart structures
9. Humanoid mechanisms development
10. SMART mechanisms for sensing, actuation and measurement using Piezo electric, Shape Memory Alloys and other materials
11. Thermo electronic devices
12. Phase change mechanisms / materials for Human in Space application
13. Nano materials with improved thermal / mechanical properties
14. Thermal modeling and analysis of high power satellites
15. Advanced thermal control systems
16. Advanced cooling systems
17. Thermo mechanical analysis of Spacecraft solar arrays
18. Mathematical modeling and simulation of GEOSAT & IRS Power Systems Bus
19. EMI / EMC analysis of Spacecrafts
20. Advanced Encryption and Decryption Algorithms and Advanced Coding Techniques
21. Advanced Modulation Techniques
22. Programmable Solar Array And Battery Simulators
23. Advanced Micro wave Filters and Antenna Technologies
24. Formation Flying
25. Absolute and Relative Navigation in Space
26. Development of RF Sensing Technologies
27. Nuclear Powered Satellites
28. Control moment Gyro's
29. Large unfurlable Antenna (Thin and Light weight)
30. Space Debris
31. Integrated Power and attitude control using Fly wheels.
32. High bit rate data Handling
33. Digital Transponder
34. Optical Navigation
35. Navigation / GPS Receiver Development and its applications and how to improve the accuracy mathematically.

36. Development of software for Geographic Information System
37. Atmospheric Studies
38. Developing a technique / Instrument to detect the pollution(River, Sea, Air etc)
39. Disaster Mapping
40. Protective ceramic / oxide thin film coating on polymer
41. Development ITO coating on polymer for ESD application
42. High emittance ceramic based coating
43. Variable emittance coating
44. Development of C/C and C/Sic composite with incorporation of CNT
45. Development of DLC coating for solid lubricant
46. Development of high efficiency solar cell
47. Development of conducting polymer with high strength