Review Article

Vol: 2; Issue: 3

Different Funding Agencies to Impart Research Culture and Support Knowledge Translation in Indian Academics Institutes

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Date Received:	Date of Accepted:	Date Published:
14-Feb-2014	18-Mar-2014	21-Mar-2014

Abstract:

In India, not much funding is allotted for carrying out fundamental research in educational institutions, especially graduate level institutions. There are very few funding agencies in India such as UGC, DST, DRDO, CSIR, and INSA. AICTE and DBT gave a new impetus to the development of the field of modern biology and biotechnology in India. The Department has promoted and accelerated the pace of development of biotechnology in the country through several R&D projects, demonstrations and creation of infrastructural facilities, a clearly visible impact in this field has-been seen. Despite the knowledge, drive, potential and motivation, the Indian youth miserably fail in research activities, because of inadequate funding. It is very saddening to note that our country is losing young, energetic and research- oriented students, since they migrate to foreign countries where the universities are supported by well equipped research laboratories.

Keywords: Department of Science and Technology (DST), Defense Research and Development Organization (DRDO),Council of Scientific and Industrial Research (CSIR), and Indian National Science Academy (INSA).

Introduction

Various national and international agencies have identified priority areas for funding of collaborative research. The proposals submitted to the funding agencies need to be original and address the research areas prioritized by an agency. Because research funding agencies are the gatekeepers to funds for conducting research, they may be able to encourage knowledge translation and exchange by their funding recipients. They can also actively disseminate information; involve end users in prioritizing research topics and fund implementation research. However, little is known about funding agency policies to promote knowledge translation.[1]

Sponsoring agencies from Government of India

1. Ministry of Science &Technology
a. Department of Science &Technology (DST)
b. Department of Scientific &Industrial Research (CSIR)
c. Department of Biotechnology (DBT)
d. Department of Ocean Development (DOD)
2. Ministry of Environment & Forests
e. National Biodiversity Authority (NBA)
f. Aquaculture Authority of India (AAI)
g. Zoological Survey of India (ZSI)
h. Botanical Survey of India (BSI)
3. Ministry of Agriculture
i. Department of Agriculture (ICAR)
j. Department of Animal Sciences (ICAR)
k. Department of Fisheries (ICAR)
l. Fisheries Survey of India (FSI)

Funding Pattern of the government

The projects are classified into eight major subject areas:

- Agricultural Sciences
- Biological Sciences
- Chemical Sciences
- Earth Sciences
- Engineering and Technology
- Medical Sciences
- Physical Sciences
- The institutions have been classified into 11 categories:
- Universities (20 Government Universities)
- Deemed universities (63 Deemed universities)
- Science colleges
- Engineering colleges
- Medical/pharmacy colleges
- Institutes of national importance
- National laboratories
- Government departments/State S&T councils
- Scientific and Industrial Research Organizations
- Research institutions and voluntary organizations

The activities of Central Government

- Responsible for major policy relating to higher education
- Establishes central universities in the country.
- Declaration of Education Institutions as 'Deemed to be University'
- Determination and maintenance of standards and release of funds

The activities of State Government

- Establishment of State Universities and colleges
- Provide plan grants for their development
- The Central Advisory Board of Education (CABE)

Some of the leading Indian funding agencies are as mentioned below:

1. Department Of Biotechnology (DBT)[2]

The Department has made significant achievements in the growth and application of biotechnology in the broad areas of Agriculture, Health care, Animal Sciences, Environment, Industry. There has been close interaction with the State Governments particularly through State S&T Councils for developing biotechnology application projects, demonstration of proven technologies, and training of human resource in States and Union Territories.

A unique features of the Department

- The deep involvement of the scientific community of the country through a number of technical task forces.
- Advisory committees and individual experts in identification, formulation, implementation and monitoring of various programmes and activities.
- Concerted effort in research and development in identified areas of modern biology and biotechnology have given rich dividends.
- The proven technologies at the laboratory level have been scaled up and demonstrated in field. Patenting of innovations, technology transfer to industries and close interaction with them have given a new direction to biotechnology research.
- Transgenic research in plants with emphasis on pest and disease resistance, nutritional quality, silk-worm genome analysis, molecular biology of human genetic disorders, brain research, plant genome research, development, validation and commercialization of diagnostic kits and vaccines for communicable diseases, food biotechnology, biodiversity conservation and bio-prospecting, setting up of micro-propagation parks and biotechnology based development for SC/ST, rural areas, women and for different States.
- Necessary guidelines for transgenic plants, recombinant vaccines and drugs have also been evolved. A strong base of indigenous capabilities has been created.

Fig No.1 Different programmmes of Department of Biotechnology

2.DEPARTMENT OF SCIENCE AND TECHNOLOGY (DST)[3]

The Department of Science & Technology plays a pivotal role in promotion of science & technology in the country. The Department of Science & Technology (DST) was established in May 1971, with the objective of promoting new areas of Science & Technology and to play the role of a nodal department for organizing, coordinating and promoting S&T activities in the country under the Ministry of Science & Technology.

The Department has major responsibilities for specific projects and programmes:

1. Formulation of policies relating to science and technology
2. Matters relating to Scientific Advisory Committee of Cabinet (SACC)
3. Promotion of new areas of S&T with special emphasis on emerging areas (i) Research and Development through its research institutions or laboratories for development of indigenous technologies concerning bio-fuel production, processing, standardization and applications, in co-ordination with the concerned Ministry or Department;(ii) Research and Development activities to promote utilization of by-products to development value added chemicals.
4. Coordination and integration of areas of Science and Technology having cross -sectoral linkages in which a number of institutions and departments that have interests and capabilities.
5. Futurology.
6. Undertaking or financially sponsors scientific and technological surveys, research design and development; wherever necessary,
7. Support and grants-in-aid to the scientific research institutions, scientific association or bodies.
8. It plays a key role in matters regarding the inter agency/ interdepartmental coordination for evolving science and technology missions, matters concerning domestic technology particularly the promotion of ventures involving the commercialization of such technology other than Council of Scientific and Industrial Research (CSIR).

Departments of Science and Technology

1. Administration
2. Autonomous Institute
3. Scientific group
   - International Division
   - Technology Development and transfer
   - Policy planning coordinating cell
   - National Science & Technology Entrepreneurship Development Board ((NSTEDB)
   - National Council for Science & Technology Communication
   - Natural Resources Data Management System (NRDMS)
   - Climate Change Programme
   - Science and society
   - National Science & Technology Management Information System (NSTMIS)
   - Fund for Improvement of S&T Infrastructure in Higher Educational Institutions (FIST)
   - Technology Development and transfer
4. Integrated finance
5. Technology Development Board
6. Scientific services
   - Survey of India
   - National Atlas And Thematic Mapping Organization

Different Programmes of Department of Science and Technology

1.Scientific & Engineering Research:

- Jawaharlal Nehru Science Fellowships
- Mission on Nano Science and Technology (Nano Mission)
- Fund for Improvement of S&T Infrastructure in Universities and other Higher Educational Institutions (FIST)
- Sophisticated Analytical Instrument Facilities (SAIFs)
- Human Resource Development and Nurturing Young Talent.
- Swarnajayanti Fellowships
- Women Scientists Programs
- Kishore Vaigyanik Protsahan Yojana

- Innovation in Science Pursuit for Inspired Research (INSPIRE) programme
- National Science & Technology Management Information System (NSTMIS)
- SERB Constitution Notification

2.Technology Development:

- Drugs & Pharmaceutical Research
- Good Laboratory Practice Authority
- Instrumentation Development Programme
- Inter-Sectoral Science & Technology Advisory Committee (STAC /IS-STAC)
- Natural Resources Data Management System (NRDMS)
- National Spatial Data Infrastructure (NSDI)
- Patent Facilitating Centre
- Technology Development Board
- Technology Systems Development Programme
- Climate Change Programme
- Fly Ash Unit

3.S&T and Socio Economic Development

- National Council for Science & Technology Communication (NCSTC)
- Science For Equity Empowerment and Development (SEED)
- National Science & Technology Entrepreneurship Development Board (NSTEDB)
- State Science & Technology Programme

4.International S&T Cooperation

- Cooperation with Countries
- Cooperation with Regional Organisations [ASEAN Indo STEPAN (Science & Technology Policy Asian Network),SAARC (India, Nepal, Bangladesh, Pakistan, Srilanka, Maldive, Bhutan) ,NAM]
- Multilateral Programmes:
  - ❖ UNESCO
  - ❖ UNDP
  - ❖ BIMST-EC (Bangladesh, India, Myanmar, Srilanka, Thailand)
  - ❖ IOR - EC (Indian Ocean Rim)
  - ❖ TWAS
  - ❖ Indo European
  - ❖ Women Scientists Programs

5. Category of Scholarships:

- Scholarship for Research in Basic/Applied Science (WOS-A)
- Scholarship for Research in S&T - based Societal Programs (WOS-B)
- Internship for the Self-Employment (WOS-C
- The scholarships have been instituted in the following subject areas :Physical Science;Chemical Science; Mathematical Science; Life sciences; Earth Sciences;Atmospheric Sciences; Engineering Sciences.

6. Technology Mission :

- Plan Document.
- War For Water
- Identified Water Related Challenges.
- Clusters for Water Challenges Tech Mission: WAR for Water.
- Bhaskar Advanced Solar Energy (BASE) Fellowship Programme
- Solar Energy Research Initiative
- Water Technology Initiative Programme

3.DEFENCE RESEARCH AND DEVELOPMENT ORGANIZATION (DRDO)[4]

The Defence Research and Development Organization under the Ministry of Defence is dedicatedly engaged in the formulation and execution of programmes of scientific research, design and development, testing and evaluation leading to induction of state-of-art weapons and equipment which would compete and compare favorably with its contemporary systems available elsewhere in the world. It consists of a chain of laboratories/establishments situated all over the country, pursuing assigned scientific goals with delegated powers under the policy direction provided by the headquarters in New Delhi. The DRDO also supports a substantial amount of extramural research in academic institutions and other laboratories on defense related problems through various grants-in-aid schemes and other sponsored projects. The organization encourages and supports basic research in academic institutions through a scheme of extramural research and four Research Boards devoted to Aeronautics, Naval Research, Life Sciences, and Armaments. The purpose of Life Sciences Research Board (LSRB) is to expand and deepen the knowledgebase of life sciences in the country through strengthening and use of national resources of knowledge, know-how, experience, facilities and infrastructure. The research supported by the LSRB is to enhance the core competence in the fields of knowledge (and their application) germane to development, manufacture and use of biomedical and biotechnological products as also preventive and curative procedures. The LSRB endeavors to create conditions suitable for attracting talent and experience from overseas locations through research collaborations and other academic exchanges. Accordingly LSRB supports research proposals in broad topic areas in Life

Sciences viz., biological and biomedical sciences, psychology and physiology, bioengineering, specialized high altitude agriculture, food science & technology etc. Innovative ideas and proposals from young scientists are encouraged.

4. COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH (CSIR)[5]

The CSIR was established in 1942 as a autonomous under the Registration of Societies Act of 1860., non-profit organization with a wide ranging charter of functions. The Council of Scientific and Industrial Research (CSIR) is the name of the nationwide research platform consisting of a network of laboratories which spans the geographical dimensions of India. This multidisciplinary and multi locational council runs 39 laboratories and 80 field centers which carry out fundamental and applied R&D in all areas of science and technology, barring atomic energy. The dynamic dimension of the network is the pool of knowledge and expertise of over 5000 active scientists of repute, supported by over 10,000 scientific and technical personnel. This scientific infrastructure was built up over six decades at a cost of equivalent to 1 billion US dollars at current value.

The major functions of Council of Scientific and Industrial Research include

1. Promotion, guidance and coordination of scientific and industrial research in India;
2. Establishment or development of and assistance to existing special institutions or departments for scientific study of problems affecting particular industries and trades;
3. Award of fellowship; utilization of Council's R&D results for industrial development;
4. Collection and dissemination of Science & Technology information and technology generation, absorption and transfer.

The Council provides financial assistance to promote research work in the fields of Science & Technology, including agriculture, engineering and medicine. The assistance is provided by way of grants to Professors/Experts in regular employment, in the universities, IITs, postgraduate institutions, recognized R&D laboratories both in public and private sectors.
The CSIR provides essential financial inputs for viable research schemes so as to obtain definite advancements in specific fields and areas.

Different sectors of CSIR'S R &D Services

1. Aerospace and Aeronautics
2. Bio-sciences and Bio-technology
3. Chemicals and Chemical Technology
4. Coal, Gas and Petroleum
5. Drugs and Pharmaceuticals
6. Earth and Ocean Resources
7. Ecology and Environment
8. Electronics and Instrumentation
9. Food Processing
10. Leather and Leather Goods
11. Machinery and Equipments
12. New Materials
13. Mining and Metallurgy

and later on in 1987 given statutorystatus by an Act of

5. INDIAN NATIONAL SCIENCE ACADEMY (INSA)[6]

The Indian National Science Academy was established in January 1935 with the object of promoting science in India and harnessing scientific knowledge for the cause of humanity and national welfare.

The main objectives of the Indian National Science Academy are:

1. Promotion of scientific knowledge in India including its practical application to problems of national welfare.
2. Coordination among Scientific Academies, Societies, Institutions, Government Scientific Departments and Services.
3. To acts as a body of scientists of eminence for the promotion and safeguarding of the interests of scientists in India through properly constituted National Committees, for undertaking scientific work of national and international importance.
4. To promote and maintain liaison between Science and Humanities, while attempting resource mobilization for the promotion of Science. The Academy also dons advisory role to the government on critical issues in science and technology.
5. To serves as a forum for interaction among scientists within and outside the country.
6. To secure and manage fund and endowment for promotion of science.
7. To publish such proceedings, journals, memories and other publications as may be found desirable.
8. To act through properly constituted National committees, in which other learned academies and societies may be associated, for undertaking scientific work of national and international importance which the academy may be called upon to perform by the public and by Government.

6. ALL INDIA COUNCIL FOR TECHNICAL EDUCATION (AICTE)[7]

It is the statutory body and a national-level council for technical education, under Department of Higher Education, Ministry of Human Resource Development. Established in November 1945 first as an advisory body

their professional growth by enabling them to devote

Parliament, AICTE is responsible for proper planning and coordinated development of the technical education and management education system in India. The AICTE accredits postgraduate and graduate programs under specific categories at Indian institutions as per its charter.

Objectives of AICTE

1. Promotion of Quality in Technical Education
2. Planning and Co-ordinate Development of Technical Education System.
3. Regulations and maintenance of Norms and Standards.
4. Modify the engineering curriculum to Greater emphasis on design oriented teaching, teaching of design methodologies, problem solving approach; Greater exposure to industrial and manufacturing processes ;Exclusion of outmoded technologies and inclusion of the new appropriate and emerging technologies; Greater input of management education and professional communication skills.

Departments of All India Council for Technical Education

1. Administration
2. Academic
3. University
4. Finance
5. Approvals
6. Planning and Coordination
7. Quality Assurance
8. AICTE Quality improvement schemes

AICTE Quality Improvement Schemes:

AICTE Quality Improvement Schemes (AQIS), promotes Quality in Technical Education through Research and Development and several other schemes which aim to create technical work on a systematic basis in order to increase the available body of knowledge, which includes the technical institutes, its faculty and students and their interdependence on technology and the use of this knowledge to devise new applications. These schemes are being operated by the RIFD Bureau through which, as a part of its functions, AICTE provides financial assistance to various Institutions for improvement in quality of education. It also promotes research and development in technical institutions and to enhance industry Institute Interaction. Some of the popular schemes are as follows ;

1. Career Award For Young Teachers (CAYT): The purpose of the scheme is to identify young talented teachers who have established competence in their area of specialization. The scheme helps them in promoting

9. National Doctoral Fellowship Scheme (NDF): The scheme offers selected persons in emerging areas / maximum time in research and study with minimum teaching responsibilities.

2. Entrepreneurship Development Cell (EDC): This scheme motivates to develop a support system for technocrats and entrepreneurs. The Entrepreneurs Development Cell set up under the scheme is expected to act as a tool to promote entrepreneurship and self-employment amongst technical students as an attractive and viable career option.

3. Emeritus Fellowship (EF): This scheme allows use of services of highly qualified and experienced superannuated Professors / Scientists from Institutesof National Importance and otherCentrally funded Institutes.

5.

4.Modernisation and Removal Of Obsolescence (MODROBS): The scheme equips technical institutions with infrastructural facilities, laboratories, workshops, and computing facilities to enhance teaching, training and research capabilities. National Facilities In Engineering And Technology With Industrial Collaboration (NAFETIC):This scheme aims to establish National Facilities in frontier areas of Engineering and Technology in collaboration with industry for design, instrumentation, testing, manufacturing etc. in AICTE approved Institutions.

5.Nationally Coordinated Project Scheme (NCP): This scheme promotes R & D on themes of National / Social importance, which may involve networking and collaboration amongst several institutions and industry user organizations.

6. Research Promotion Scheme (RPS): This scheme Promotes Research in identified thrust areas of in Technical Education. RPS is aimed to create research ambience in the institutes by promoting research in engineering sciences and innovations in established and newer technologies; and to generate Master's and Doctoral degree candidates to augment the quality of faculty and research personnel in the country.

7. Scheme of Seminar Grant (SG): The scheme provides an opportunity to faculty, academicians and working professionals for sharing of ideas, innovations and inventions by means of funding a seminar

8. Scheme of Travel Grant (TG): The scheme enables meritorious faculty to interact at International Level Conferences, both within and outside India, Seminars, and Symposia. Teachers from AICTE approved Technical Institutions / University departments are eligible for this grant.

approved Technical Institutions to facilitate up gradation of knowledge and skill.

disciplines of technical education approved by AICTE to pursue Doctoral Program with an objective to attract highly qualified and motivated person and offer themselves for teaching position in the technical education system. It is provide research support to bright young people for pursuing exciting and innovative research in the field of technical education.

10. Industry Institute Partnership Cell (IIPC): This scheme aims to create an IIP Cell in a Technical Institution which promotes interaction between faculty, students and industry. The objective of the IIP Cell is to reduce the gap between industry expectations (practice) and academic offerings (theory) by direct involvement of industry to attain a symbiosis.

11.Quality Improvement Programme (QIP): The main objective of the programme is to upgrade the expertise and capabilities of the faculty members of the degree level institutions in the country. The aim is to enable the teachers to acquire Master's/ Doctoral degrees and imbibe in them a culture of research and better teaching educational capabilities by exposing them to the environment of the institutes of study.

12.Hostels for SC/ST Students: The scheme aims to support Government / Government-aided engineering colleges for construction of girls / boys hostels for providing residential accommodation for students / researchers belonging to SC/ST category.

13.Research Park (RP): This scheme provides financial assistance to institutions for setting up Research Park in collaboration with the Industry or group of Industries. Grant of Rs. 1 crore (per State-UT) shall be given under this scheme.

14.Innovation Promotion Scheme (IPS): The scheme provides financial assistance to institutions for organizing technical projects exhibition at state/UT level. The scheme intends to bring out practical talent among students by providing a forum for exhibiting their technical knowledge and innovations. This scheme also intends to exhibit this talent to industry in order to convert useful / innovative / commercially viable projects into products. This will also initiate interest in entrepreneurship activities or in registering for patents/IPR etc.

15.Faculty Development Programme (FDP): The scheme is intended to provide opportunities through AICTE approved Staff Colleges / Institutions for induction training to teachers employed in AICTE

16.Summer Winter School (SWS): The scheme is intended to provide opportunities through AICTE approved Staff Colleges / Institutions for Subject training that enhances teaching skills to teachers employed in AICTE approved Technical Institutions to facilitate up gradation of knowledge and skill.

17.Project Centre for Technical Education: The aim is to support students in developing academic projects and to provide assistance to complete the project documentation from initial "ideal stage" to final "product and presentation stage" finishing end.

18.Skill and Personality development Program centre for SC/ST Students: The broad objectives of the centre is to provide opportunity to SC/ST students in the Institutes, the help they may need, their readiness to reorient themselves in the light of emerging employment opportunities to Engineering undergraduate/Diploma students at all level.

19.E-Learning Centre for Technical Education: The centre would create e-resource facility to impart technical education (Engineering ,Architecture, Pharmacy, applied arts etc.) at all level. The aim is to enhance quality of institutions through sharing of resources and technical capability of lead institute.

20.Visiting Professorship: Eminent scholars holding the post of Professors shall be considered for appointment as Visiting Professors. The main objective of the scheme is to supplement and provide expertise to the teaching / research in those areas in which the host institution needs the expertise

7.UNIVERSITY GRANT COMMISSION[8]

The UGC, however, was formally established only in November 1956 as a statutory body of the Government of India through an Act of Parliament for the coordination, determination and maintenance of standards of university education in India. In order to ensure effective region-wise coverage throughout the country, the UGC has decentralised its operations by setting up six regional centres at Pune, Hyderabad, Kolkata, Bhopal, Guwahati and Bangalore. The head office of the UGC is located at Bahadur Shah Zafar Marg in New Delhi, with two additional bureaus operating from 35, Feroze Shah Road and the South Campus of University of Delhi as well.
The UGC has the unique distinction of being the only grant-giving agency in the country which has been vested with two responsibilities: that of providing funds and that of coordination, determination and maintenance of standards in institutions of higher education.

The UGC's mandate includes:

The details of the regional office viz. the States

- Promoting and coordinating university education.
- Determining and maintaining standards of teaching, examination and research in universities.
- Framing regulations on minimum standards of education.
- Monitoring developments in the field of collegiate and university education; disbursing grants to the universities and colleges.
- Serving as a vital link between the Union and state governments and institutions of higher learning.
- Advising the Central and State governments on the measures necessary for improvement of university education.

The University Grants Commission Act and Rules & Regulations under the Act, 1956

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Composition of the University Grant Commission

The Commission shall consist of –

(i) A Chairman,
(ii) AVice-Chairman, and
(iii) Ten other members, to be

appointed by the Central Government

UGC Regional Offices

Objectives

Pursuance to the National Policy on Education (1986), the UGC de-centralised its working by opening seven regional offices catering to the states under it. The objectives of setting up these offices were to bring about de-centralisation and to ensure that a large number of colleges throughout the country, which are covered under Section 2(f) and 12(B) of the UGC Act, will have better opportunities of response to their needs and problems by way of easier access.

Schemes

The following schemes are being implemented by the regional offices

- Development of Colleges affiliated to State Universities
- Minor Research Projects for College teachers
- Autonomous Colleges
- Seminar/Symposia/Conference etc. for colleges
- Construction of Women's Hostel (Special scheme)
- Award of Teacher Fellowship to College Teachers for doing M.Phil/Ph.D.
- Financial assistance to Teachers - Visually Handicapped (Blind)

assigned to each regional office are given below:

1. **Southern Eastern Regional Office (SERO)**
   Location: Hyderabad
   Date of Establishment: 20.09.1994
   Total number of Colleges: 668
   States Covered: Andhra Pradesh, Puducherry, Andman & Nicobar and Tamil Nadu
2. **Western Regional Office (WRO)**
   Location: Pune
   Date of Establishment: 11.11.1994
   Total number of Colleges: 996
   States Covered: Maharashtra, Gujarat, Goa, Dadar & Nagar Haveli, Daman and Diu
3. **Central Regional Office (CRO)**
   Location: Bhopal
   Date of Establishment: 01.12.1994
   Total number of Colleges: 791
   States Covered: Madhya Pradesh and Rajasthan
4. **Northern Regional College Bureua (NRCB)**
   Location: Delhi
   Total number of Colleges: 922
   States Covered: Jammu & Kashmir, Himachal Pradesh, Punjab, Chandigarh, Haryana and Uttar Pradesh
5. **North-Eastern Regional Office (NERO)**
   Location: Guwahati
   Date of Establishment: 01.04.1995
   Total number of Colleges: 253
   States Covered: Assam, Meghalaya, Mizoram, Manipur, Tripura, Arunachal Pradesh and Nagaland
6. **Eastern Regional Office (ERO)**
   Location: Kolkata
   Date of Establishment: 03.09.1996
   Total number of Colleges: 1009
   States Covered: West Bengal, Bihar, Orissa and Sikkim
7. **South-Western Regional Office (SWRO)**
   Location: Bangalore
   Date of Establishment: 25.04.1999
   Total number of Colleges: 714
   States Covered: Kerala, Karnataka and Lakshadweep
8. **Inter University Centers (IUC)**

The UGC has been setting up autonomous centers, from 1984, when the first one was established to provide common facilities for research and for various services and programmes to the universities, since heavy investment in infrastructure and input is beyond the reach of the individual university to obtain these facilities. Inter University Accelerator Centre was the first Inter-University Centre to be established by the UGC in 1984. The primary objective of the Centre is to establish within the university system world class facilities for accelerator based research. Its aim is to

formulate common research programmes of research and

biotechnology, nanotechnology, stress management,

development in collaboration with universities, IITs and other research institutions. It promotes group activities and human research development in experimental science and other branches of knowledge.

National Facilities

The UGC has established 4 National Facilities Centre in the selected universities as per details given below:-

1. Western Regional Instrumentation Centre, Mumbai, Mumbai University: This Centre was established by University Grants Commission in 1978 under the administrative control of Mumbai University with the objective to provide training to USIC staff and students for proper use and maintenance of instruments conducting advanced study programmes such as workshops, seminars for teachers, Research workers from University, National Laboratories and industries etc.
2. M.S.T. Radar Facilities, Sri Venkateshwar University, Tirupati: The University Grants has established a centre for MST Radar application in the Physics Department SU University, Tirupati in 1990 to utilize the National MST Radar facilities created at Gadanki by the Researchers and Scientists in Indian Universities.
3. Inter University Centre for Humanities and Social Sciences IUCHSS, Indian Institute of Advanced Study, Shimla: The main objectives of the Centre are to invite teachers from universities and colleges to the institute as associate of the IUC, organise "Research Seminars" for researchers and young teachers in University and Colleges and to organize "Study weeks" for discussing important problems of National and international interest.
4. Crystal Growth Centre, Anna University, and Madras: This centre was established in 1982 with the following objectives.
   - To develop facilities for growth and growth and characterization of crystal of technological and industrial importance.
   - To bridge the gap between needy industries and Lab. Res.
   - To cater the needs of various institutions in India with regard to requirements of special crystal for Research etc

Minor Research Projects For College Teachers

The University Grants Commission strives to promote teaching and research in emerging areas in Humanities, Social Sciences, Languages, Literature, Pure sciences, Engineering & Technology, Pharmacy, Medical, and Agricultural Sciences etc. The emphasis would be supporting such areas that cut across disciplines and subjects such as health, gerontology, environment,

The Principal Investigator should publish two papers in a reputed journal in the form of Books/Article/Presentation WTO and its impact on economy, history of science, Asian philosophy and many other areas as would be identified by subject experts.

There are disciplines such as defence and strategic studies which include national security affairs, insurance and banking, economics and world trade which in a true sense are multidisciplinary in nature, cutting across disciplines of sciences, humanities and social science, and are of importance in a rapidly changing global scenario. These and allied disciplines need to be studied and researched in a more organized manner. Institutionalization of such activities is a need of the present times.

The objectives are to promote excellence in research in higher education by supporting research programmes of University and College teachers in various disciplines. Traditionally, universities have been the centers of research. Although, the Government has a network of science and technology laboratories for research and development, the major base of researchers in science and technology remains with the universities. Therefore, university and college teachers need to be supported to meet this requirement.

1.Eligibility/Target Group:

The University Grants Commission will provide support to permanent/regular, working/retired teachers in the Universities and Colleges (Under Section 2(f) & 12 B of UGC Act, 1956) only. Colleges and Universities sponsoring the proposal should have adequate research facilities. Research project may be undertaken by an individual teacher or a group of teachers. The financial support would be decided by the UGC depending on the project/study. Vice-Chancellor, Principal, Librarian and Physical Education Teacher will also be eligible to participate in the scheme. In case a project is undertaken jointly, one of the teachers will function as a Principal Investigator and he/she will be responsible for all matters pertaining to the project. A teacher, working or retired can have only one project/ scheme of the UGC at any given time.

The one, which is offered and accepted first irrespective of Principal Investigator/Co-Investigator, must be completed before the other offer is accepted. Failure to abide by this rule shall make the Principal Investigator/Co-Investigator and the Institution liable to refund the entire amount paid by the UGC in all such schemes. They may be also debarred from participation in future UGC programmes. It would be the responsibility of the Principal Investigator/Co-Investigator and the host Institution for total accountability of the project. After completion of one project, if a teacher desires to undertake another UGC project, a gap of one year will be necessary.

Conclusion:

Funding agencies are engaged in a wide range of

in seminar etc. from the said project completed. Retired teachers, up to the age of 70 years can also participate under the scheme. In case of retired teachers, there has to be a Co-Investigator (Permanent Teacher) from the Department, where the project is likely to be undertaken. The Commission will also provide financial assistance to the college and University teachers preferably Lecturers who wish to undertake, along with teaching work, a Minor Research Project or working for doctorate degree under an approved supervisor. Retired teacher is not eligible for Minor Research Project.

2. Nature of Assistance:

The quantum of assistance for a research project will be as under:

- Major Research Project in Sciences including Engineering & Technology, Medical, Pharmacy Agriculture etc. - Rs. 12 lacs.
- Major Research Project in Humanities, Social Science, Languages, Literature, Arts, Law and allied disciplines - Rs. 10 lacs.
- Minor Research Project – Sciences Rs. 2 lac.
- Humanities & Social Sciences - Rs.1.5lacs

The Commission will provide financial support for the items like Equipment, Books and Journals,Research Personnel (Post-Doctoral Fellow, Project Associate or Project Fellow), Hiring Services, Contingency, Chemicals and Consumables, Travel and Field work and any special requirements. However, assistance towards research personnel will not be provided in Minor Research Project

creative knowledge translation activities. They might consider their role as knowledge brokers, with an ability to promote research syntheses and a focus on health equity. There is an urgent need to evaluate the knowledge translation activities of funding agencies. National agencies may be more motivated to engage in knowledge translation activities than international funding agencies Funding agencies might consider their role as knowledge brokers, by fostering and encouraging interactions between researchers and relevant stakeholders. As knowledge brokers, funding agencies could promote research syntheses and a focus on health equity. There is an urgent need to evaluate these funding agency knowledge translation activities to learn what works, why and in what context, in order to better justify spending on knowledge translation and to improve performance.

REFERENCES:

1. Funding agencies in low- and middle-income countries: support for knowledge translation Cynthia Cordero etal Bulletin of the World Health Organization | July 2008, 86 (7)
2. http://dbtindia.nic.in/index.asp
3. http://www.dst.gov.in/
4. www.drdo.gov.in
5. www.csir.res.in/home.asp
6. www.insaindia.org
7. www.aicte-india.org
8. www.ugc.ac.in/