**Gujarat State Higher Education Plan**

**2015-16**



**Knowledge Consortium of Gujarat**

**Department of Education**

**Government of Gujarat**

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**Chapter-1**

* **Introduction**

**Mission**

Gujarat has continued to enhance its reputation as a pioneer in introducing new educational initiatives, which have not only improved the quality of higher education in the state, but also served as a model for replication in other parts of the country. Knowledge has long been recognized as a key source of economic growth and a valuable asset that ought to be suitably leveraged by Governments across the world, especially now, in the era of globalization. The continued mission of the Government of Gujarat is to ensure that a greater proportion of the state’s youth population is able to avail access to good quality higher education.

**VISION**

For a high-growth economy like Gujarat, built on a thriving agriculture sector and a vibrant industrial base, the knowledge sector is to undoubtedly play a key role in the state’s future growth trajectory.The growth of the future economy will be highly dependent on invention, innovation, ideas and knowledge, the flourishing of which is grossly contingent upon higher education and research. Therefore, with the fact that higher education, skill development and creative thinking can be an economy’s global opportunity, Government of Gujarat aims to ensure that a massive number of youth, who are the highly enthusiastic as well as promising section of the population, get good quality higher education. The youth is the main target group and the opportunities of higher education must reach them in order to make them competitive human resource, to widen their vision, to give them the ability to explore multiple avenues, and to open up innumerable opportunities for their development.

**GOALS**

To fully explore it’s potential of becoming an educational hub in the near future, and in order to utilize the vibrant economic environment efficiently, there is a need to enhance the quality of education by mobilizing the resources in favour of increasing accessibility, equity and excellence and a new framework for measuring outcomes along the lines of good quality of life is proposed. It is proposed that the underlying goal of education should be to enhance the quality of life of students with disabilities by more emphasis on academic achievement, should guide the curriculum and all modern assessment measures. Not a replacement for our existing curriculum, these programs will represent an option for students whose goals are to enter fields with strong employment demand but also with high attrition rates, especially among those groups who have historically not fared well in existing programs.

**Chapter-2**

* **COMPONENT 3**
* **INFRASTRUCTURE GRANTS TO UNIVERSITIES**

**In this SHEP 2015-16, it is proposed to provide funding to two Universities which are as follows:**

1. Gujarat University
2. Hemchandracharya North Gujarat University

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S.NO** | **NAME OF THE UNIVERSITY** | | **GUJARAT UNIVERSITY** | | | | | **HNGU** | |
|  |  | |  | |  | | |  |  |
|  | CATERGORY (GOVT OR AIDED) | | Govt. | |  | | | Govt. |  |
|  | NAAC GRADE | | B | |  | | | B |  |
|  | DATE OF ACCREDITATION AND CYCLE | | 01/05/2015  Cycle 2 | |  | | | 16/09/2008  Cycle 1 |  |
|  | 12 B STATUS | | Yes | |  | | | Approved |  |
|  |  | |  | |  | | |  |  |
| **S. NO** | **ITEM** | | **UNITS** | | **COST** | | | **UNITS** | **COST** |
|  |  | |  | | **(Rs. In crores)** | | |  | **(Rs.)** |
| **NEW CONSTRUCTION (MAX 35%=7 Cr)** | | | | | | | |  |  |
| **1** |  | |  | | |  | |  |  |
|  | CLASSROOMS | | 08 | | | Rs. 1.5 crores | | 4 | Rs. 57.6 lakhs |
|  | LIBRARY (Reading Room for 600students) | | 01 | | | Rs. 2.0 crores | | 1 | Rs. 1,50,00,000 crores |
|  | LABORATORY | | 06 | | | Rs. 2.0 crores | | 2 | 99,00,000 |
|  | COMMON ROOM FOR STUDENTS – Ladies Room | | 35 departments | | | Rs. 1.5 crore | |  |  |
|  | TOILET-BOYS | |  | | |  | | 3 | 18,49,500/- |
|  | TOILET- GIRLS | |  | | |  | | 3 | 19,72,800/- |
|  | HOSTEL- GIRLS | |  | | |  | | 1 | 1,91,80,000/- |
|  | HOSTEL- BOYS | |  | | |  | | 1 | 1,78,10,000/- |
|  | OTHER COMMON FACILTY | |  | | |  | | 1(Cafeteria for Canteen) | 18,20,000/- |
|  |  | |  | | |  | |  | **7,32,92,300/-** |
| **RENOVATION/UPGRADATION (35%= Rs 7 Cr)** | | | | | | | |  |  |
| 2 | ACADEMIC BUILDING |  | |  | | | |  | 95,91,000/- |
|  | ADMINISTRATIVE BUILDING –Tower-Accounts & Establishment Section | 1 | | Rs. 1 crores | | | |  | 72,48,000/- |
|  | LIBRARY - |  | |  | | | |  | 49,72,000/- |
|  |  |  | |  | | | |  |  |
|  | CLASSROOM/SMART CLASSROOM – single seater chair, smart board, projector, 1computer and renovations | 35  Departments- 1 classroom for each departments | | Rs. 1.75 crores | | | |  |  |
|  | LABORATORY | 11 Science Department | | Rs . 2.00 crores | | | |  |  |
|  | COMPUTER CENTRE | Rollwala  Computer  Center | | Rs. 1.00 crores | | | |  |  |
|  | WI-FI ENABLING- Modernisation of Library through RFID technology, Digitalisation& Furnishing | Central Library | | Rs. 0.80 crores | | | |  |  |
|  | HOSTELS |  | |  | | | |  | 32,17,200/- |
|  | TOILETS |  | |  | | | |  | 29,16,000/- |
|  | AUDITORIUM |  | |  | | | |  | 23,40,000/- | 23,40,000/- |
|  | CANTEEN/ CAFETERIA |  | |  | | | |  |  |
|  | CAMPUS DEVELOPMENT |  | |  | | | |  | 3,83,06,094/- |
|  | PLAYGROUND UPGRADATION |  | | **Rs. 0.55 crores** | | | |  | 18,80,000/- |
|  |  |  | |  | | | |  | **7,04,70,294/-** |
| **NEW EQUIPMENT (30%= Rs. 6 Cr)** | | | | | | | |  |  |  | |  | **7,04,70,294/-** |
|  |  | |  | | | |  |  |  |
| 3. | NO. OF COMPUTER& Peripherals | | 35 Academic Departments | | | | Rs. 1.0 crores | 50 | 25,00,000/- |
|  | LABORATORY EQUIPMENTS | | Science Department | | | | Rs. 4.0 crores | 78 | 1,50,00,000/- |
|  | BOOKS & JOURNALS/E-RESOURCES | | Departmental & Central Library | | | | Rs. 0.50 crores | 20000  Approx | 2 crores approx. |
|  | SPORTS FACILITY | |  | | | | Rs. 0.45 crores |  | 1,94,18,820 |
|  | ANY OTHER | |  | | | | Rs. 0.05 crores |  | 30,00,000 |
|  |  | |  | | | |  |  | **Rs. 5,99,18,820** |
|  | GRAND TOTAL | |  | | | | **Rs. 20 crores** |  | **Rs. 20,36,81,414** |

**2.** A consolidated table may be given as follows in order of priority, highest to lowest (see the criteria of priority in the guideline under component 3):

|  |  |  |
| --- | --- | --- |
| Name of the university (mention State, private or deemed) | Total cost (Rs. lakhs) | Priority criteria |
| Gujarat University | 2000 | 1 |
| Hemchandracharya North Gujarat University | 2000 | 2 |

**Chapter-3**

* **COMPONENT 5**

**UPGRADATION OF EXISTING DEGREE COLLEGES TO MODEL DEGREE COLLEGES**

Summary  
Outof the 640 districts in the country, 288 districts would be covered under the New Model College Scheme. Funds will be provided for the up gradation of 54 colleges in the 12the plan period. Each college will be given Rs.4 crores for up gradation.

I. Funding Priorities

Priority will be given on the basis of College Population Index (CPI); districts with lower

CPI will get preference. Amongst similarly placed districts, following criteria will be

used to grade the districts in A, B and C categories:

* High proportion of socially and economically backward population
* Low GER for female students
* Low GER (SC/ST)
* Colleges will be further selected from the priority districts based on student population, antiquity, special attributes, etc.

II. Future Commitments

Colleges must have to fulfill the following requirements:

* Hostels and toilets for girls.
* 50% capacity of the new hostels for socially and economically weaker sections
* Make the campus disabled-friendly.
* Ensure special facilities/equipments for the disabled
* For the year 2015-16 it is proposed to provide funds under RUSA to the following colleges:
* The list of proposed colleges is as follows:
* The state has proposed 04 colleges to be upgraded to Model Degree College. The details of the colleges are as follows-

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Indicator | Unit | Col. 1 | Col. 2 |
| Name of College |  |  | Gujarat Commerce College(Morning), Ahmedabad | Govt Commerce College , Kubernagar , Ahmedabad Naroda |
| Whether the colleges Govt./Aided |  | category | Govt. | Govt. |
| District under which model college is proposed |  | Name | Ahmedabad | Ahmedabad |
| Number of colleges in the concerned district |  | Number | 8 | 8 |
| Is it an EBD District |  | Yes/No | No | No |
| No. Of districts where up gradation can be done as per RUSA guidelines |  | number | 288 | 288 |
| Have the districts where upgradation can be done, been prioritized on the basis of CPI |  | Yes/no | Yes | Yes |
| Reservation for socially & economically weaker sections | % of hostel seats | % |  |  |
| Percent of SC and ST population to total in the district |  | % | SC-10.53%  ST-1.24% | SC-10.53%  ST-1.24% |
| Percent of Female students enrolled to18‐23 year age group female population in the district |  | % | 46.42% | 46.42% |
| Percent of SC and ST students enrolled to18‐23 year age group SC and ST population in the state |  | % | SC-17.8%  ST-10.3% | SC-17.8%  ST-10.3% |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Indicator | Unit | Col. 3 | Col. 4 |
| Name of College |  |  | Government Arts College , Gandhinagar | Govt Science College , Valod , Dist: Tapi |
| Whether the colleges Govt./Aided |  | category | Govt. | Govt. |
| District under which model college is proposed |  | Name | Gandhinagar | Tapi |
| Number of colleges in the concerned district |  | Number | 3 | 3 |
| Is it an EBD District |  | Yes/No | No | Yes |
| No. Of districts where up gradation can be done as per RUSA guidelines |  | number | 288 | 288 |
| Have the districts where upgradation can be done, been prioritized on the basis of CPI |  | Yes/no | Yes | Yes |
| Reservation for socially & economically weaker sections | % of hostel seats | % |  |  |
| Percent of SC and ST population to total in the district |  | % | SC-7.80%  ST-1.31% | SC-1.01%  ST-84.18% |
| Percent of Female students enrolled to18‐23 year age group female population in the district |  | % | 46.60% |  |
| Percent of SC and ST students enrolled to18‐23 year age group SC and ST population in the state |  | % | SC-17.8%  ST-10.3% | SC-17.8%  ST-10.3% |

* **FINANCIAL LAYOUT**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  | | **COLL 1** | | **COLL 2** | |
| **S. NO** | **ITEM** |  |  | **UNIT** | **COST** | **UNIT** | **COST** |
|  |  |  |  |  |  |  |  |
| **New Construction 35 %** | | | |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 1.1 | CLASSROOMS |  |  | - | - | 2 | 20 lakhs |
| 1.2 | SMART CLASSROOM |  |  | - | - | 2 | 50 lakhs |
| 1.3 | LIBRARY |  |  | 1 | 110 lakhs |  |  |
| 1.4 | LABORATORY |  |  | - | - | 1 | 10 lakhs |
| 1.5 | COMMON ROOM FOR STUDENTS |  |  | - | - | 1 | 10 lakhs |
| 1.6 | TOILET-BOYS |  |  | - | - |  |  |
| 1.7 | TOILET- GIRLS |  |  | - | - |  |  |
| 1.8 | HOSTEL- GIRLS |  |  | - | - |  |  |
| 1.9 | HOSTEL- BOYS |  |  | - | - |  |  |
| 1.10 | COMPUTER CENTER |  |  | - | - | 1 | 40 lakhs |
| 1.11 | CANTEEN/CAFETERIA |  |  | 1 | 30 lakhs | 1 | 10 lakhs |
|  | TOTAL |  |  |  | **140 lakhs** |  | **140 lakhs** |
|  | | | |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 2.1 | ACADEMIC BUILDING |  |  |  | 10 lakhs | 1 | 10 lakhs |
| 2.2 | ADMINISTRATIVE BUILDING |  |  |  | 10 lakhs | 1 | 10 lakhs |
| 2.3 | LIBRARY |  |  |  |  | 1 | 30 lakhs |
| 2.4 | CLASSROOM |  |  |  | 10 lakhs | 7 | 60 lakhs |
| 2.5 | LABORATORY |  |  |  |  |  |  |
| 2.6 | COMPUTER CENTRE (Building) |  |  |  | 10 lakhs |  |  |
| 2.7 | WI-FI ENABLING |  |  |  | 40 lakhs | 1 | 10 lakhs |
| 2.8 | HOSTELS |  |  |  |  |  |  |
| 2.9 | TOILETS |  |  |  | 30 lakhs | 2 | 5 lakhs |
| 2.10 | AUDITORIUM |  |  |  |  |  |  |
| 2.11 | CANTEEN/ CAFETERIA |  |  |  |  |  |  |
| 2.12 | CAMPUS DEVELOPMENT |  |  |  | 30 lakhs | 1 | 15  lakhs |
| 2.13 | PLAYGROUND UPGRADATION |  |  |  |  |  |  |
|  | TOTAL |  |  |  | **140 lakhs** |  | **140 lakhs** |
|  | | | |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 3.1 | NO. OF COMPUTER |  |  |  | 20 lakhs | 50 | 25 lakhs |
| 3.2 | LABORATORY EQUIPMENTS |  |  |  |  |  |  |
| 3.3 | BOOKS & JOURNALS/E-RESOURCES |  |  |  | 40 lakhs |  | 40  lakhs |
| 3.4 | SPORTS FACILITY |  |  |  | 20  lakhs |  | 15  lakhs |
| 3.5 | OMR READER |  |  |  | 10 lakhs |  |  |
| 3.6 | CHAIRS AND FURNITURE |  |  |  | 30  lakhs |  | 40 lakhs |
| 3.7 | ANY OTHER |  |  |  |  |  |  |
|  | TOTAL |  |  |  | **120 lakhs** |  | **120 lakhs** |
|  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **COLL 3** | | | **COLL 4** | |
| **S. NO** | **ITEM** | **UNIT** | **COST** | | **UNIT** | **COST** |
|  |  |  |  | |  |  |
| **NEW CONSTRUCTION (MAX 35%)** | | | | |  |  |
|  |  |  |  | |  |  |
| 1.1 | CLASSROOMS | 10 | 20 lakhs | | 3 | 27 lakhs |
| 1.2 | SMART CLASSROOM | 5 | 30 lakhs | | 1 | 9.9 lakhs |
| 1.3 | LIBRARY | 1 | 75 lakhs | |  |  |
| 1.4 | LABORATORY |  |  | | 3 | 27 lakhs |
| 1.5 | COMMON ROOM FOR STUDENTS | 2 | 5 lakhs | | 1 | 45 lakhs |
| 1.6 | TOILET-BOYS | 5 | 5 lakhs | | 1 | 4.68 lakhs |
| 1.7 | TOILET- GIRLS | 5 | 5 lakhs | | 1 | 4.68 lakhs |
| 1.8 | HOSTEL- GIRLS |  |  | |  |  |
| 1.9 | HOSTEL- BOYS |  |  | |  |  |
| 1.10 | COMPUTER CENTER |  |  | | 1 | 10.8 lakhs |
| 1.11 | CANTEEN/CAFETERIA |  |  | | 1 | 10.8 lakhs |
|  | TOTAL |  | **140 LAKHS** | |  | **139.86 LAKHS** |
|  |  |  |  | |  |  |
|  | | | | |  |  |
| 2.1 | ACADEMIC BUILDING |  | |  | 1 | 35 lakhs |
| 2.2 | ADMINISTRATIVE BUILDING | 1 | | 20 lakhs | 1 | 35 lakhs |
| 2.3 | LIBRARY |  | |  | 1 | 7  lakhs |
| 2.4 | CLASSROOM | 20 | | 20 lakhs | 6 | 7  lakhs |
| 2.5 | LABORATORY | 2 | | 10 lakhs | 6 | 9  lakhs |
| 2.6 | COMPUTER CENTRE (Building) |  | |  | 1 | 1.5  lakhs |
| 2.7 | WI-FI ENABLING | 1 | | 5 lakhs | 2 | 5  lakhs |
| 2.8 | HOSTELS |  | |  | 2 | 5  lakhs |
| 2.9 | TOILETS | 5 | | 5 lakhs | 12 | 5  lakhs |
| 2.10 | AUDITORIUM | 1 | | 70 lakhs | 1 | 15  lakhs |
| 2.11 | CANTEEN/ CAFETERIA |  | |  | 1 | 10  lakhs |
| 2.12 | CAMPUS DEVELOPMENT | 1 | | 10 lakhs | 1 | 1  lakh |
| 2.13 | PLAYGROUND UPGRADATION |  | |  | 1 | 4.5 lakhs |
|  | TOTAL |  | | **140 LAKHS** |  |  |
|  | | | | |  |  |
| 3.1 | NO. OF COMPUTER | 55 | | 55 lakhs | 40 | 18 lakhs |
| 3.2 | LABORATORY EQUIPMENTS | >100 | | 5 lakhs | 250 | 37.5  lakhs |
| 3.3 | BOOKS & JOURNALS/E-RESOURCES | 100 | | 20 lakhs | 300 | 1.5  lakhs |
| 3.4 | SPORTS FACILITY | 100 | | 20 lakhs | 30 | 1.2  lakhs |
| 3.5 | OMR READER | 5 | | 5 lakhs | 6 | 0.6 lakhs |
| 3.6 | CHAIRS AND FURNITURE | Urgent | | 15 lakhs | 250 | 50 lakhs |
| 3.7 | ANY OTHER |  | |  | I card making system-1  Copier machine-2,bio metric face detection-3 | 1  Lakh  9  Lakhs  1.2  lakhs |
|  | TOTAL |  | |  |  | **120 lakhs** |
|  |  |  | |  |  |  |

**Chapter-4**

* **COMPONENT 7**
* **INFRASTRUCTURE GRANTS TO COLLEGES**

The list of proposed colleges is as follows:

1. M.N. College, Visnagar

2. R.R.Lalan College, Bhuj

3.Govt.Arts& Commerce College ,Bhilad

4. Bahauddin Arts College, Junagadh

* **FINANCIAL LAYOUT**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **COLL 1**  **M.N.College,Visnagar** | | **COLL 2**  **R.R.Lalan College, Bhuj** | | **COLL 3**  **Govt.Arts& Commerce college ,Bhilad** | |
| **S. NO** | **ITEM** | **UNIT** | **COST** | **UNIT** | **COST** | **UNIT** | **COST** |
|  |  |  |  |  |  |  |  |
| **NEW CONSTRUCTION (MAX 35%)** | | | |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 1.1 | CLASSROOMS | 1 | 27.5 LAKHS |  |  | - | - |
| 1.2 | SMART CLASSROOM |  |  | 5 | 4 LAKHS | 30 | 27 LAKHS |
| 1.3 | LIBRARY |  |  | 1 | 6 LAKHS | 01 | 20 LAKHS |
| 1.4 | LABORATORY | 1 | 27.5 LAKHS |  |  | - | - |
| 1.5 | COMMON ROOM FOR STUDENTS | 1 | 10 LAKHS | 2 | 4 LAKHS | 02 | 10 LAKHS |
| 1.6 | TOILET-BOYS | 1 | 2.5 LAKHS |  |  | 06 | 1 LAKHS |
| 1.7 | TOILET- GIRLS | 1 | 2.5 LAKHS |  |  | 06 | 1 LAKHS |
| 1.8 | HOSTEL- GIRLS |  |  |  |  | - | - |
| 1.9 | HOSTEL- BOYS |  |  | 1 | 30 LAKHS | - | - |
| 1.10 | COMPUTER CENTER |  |  | 1 | 13 LAKHS | 01 | 10 LAKHS |
| 1.11 | CANTEEN/CAFETERIA |  |  | 1 | 13 LAKHS | - | 1 LAKH |
|  | TOTAL |  | **70 LAKHS** |  | **70 LAKHS** |  | **70 LAKHS** |
|  |  |  |  |  |  |  |  |
| **RENOVATION/UPGRADATION (35%)** | | | |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 2.1 | ACADEMIC BUILDING | 2 | 25 LAKHS |  |  | - | - |
| 2.2 | ADMINISTRATIVE BUILDING |  |  |  |  | 01 | 2 LAKHS |
| 2.3 | LIBRARY | 1 | 17 LAKHS | 1 | 13 LAKHS | 01 | 10 LAKHS |
| 2.4 | CLASSROOM |  |  |  |  | 32 | 20 LAKHS |
| 2.5 | LABORATORY |  |  |  |  | - | - |
| 2.6 | COMPUTER CENTRE (Building) | 1 | 4.5 LAKHS | 1 | 6 lakhs | 01 | 10 LAKHS |
| 2.7 | WI-FI ENABLING | 3 | 0.5 LAKHS |  |  | - | - |
| 2.8 | HOSTELS |  |  | 2 | 11 LAKHS | - | - |
| 2.9 | TOILETS | 4 | 5 LAKHS |  |  | 10 | 8 LAKHS |
| 2.10 | AUDITORIUM |  |  |  |  | 01 | 10 LAKHS |
| 2.11 | CANTEEN/ CAFETERIA |  |  |  |  | - | - |
| 2.12 | CAMPUS DEVELOPMENT | 1 | 8 LAKHS | 1 | 10 LAKHS | 01 | 5 LAKHS |
| 2.13 | PLAYGROUND UPGRADATION | 1 | 10 LAKHS | 6 | 30LAKHS | - | 5 LAKHS |
|  | TOTAL |  | **70 LAKHS** |  |  |  | **70 LAKHS** |
| **NEW EQUIPMENT (30%)** | | | |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 3.1 | NO. OF COMPUTER | 50 | 15 LAKHS | 40 | 12 LAKHS | 25 | 9 LAKHS |
| 3.2 | LABORATORY EQUIPMENTS |  | 20 LAKHS | 250 | 12 LAKHS |  | - |
| 3.3 | BOOKS & JOURNALS/E-RESOURCES |  | 10 LAKHS | 150 | 1.5 lakhs |  | 5 LAKHS |
| 3.4 | SPORTS FACILITY |  | 5 LAKHS |  | 33 lakhs |  | 20 LAKHS |
| 3.5 | OMR READER |  |  |  |  |  | 5 LAKHS |
| 3.6 | CHAIRS AND FURNITURE |  | 10 LAKHS |  | 1.5 lahks |  | 15 LAKHS |
| 3.7 | ANY OTHER |  |  |  |  |  | 6 LAKHS |
|  | TOTAL |  | **60 LAKHS** |  | **60 LAKHS** |  | **60 LAKHS** |
|  |  |  |  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name- ***BAHAUDDIN ARTS COLLEGE, JUNAGADH***  Name of Principal- shreeNeelabenS.Thaker | | | | |
|  |  |  |  |  |
| **NEW Construction** | | | | |
|  |  |  |  |  |
|  | ITEM | UNIT | AREA | COST |
| 1 | LIBRARY | 1 |  | 70 LAKHS |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  | **TOTAL** |  |  | **70 LAKHS** |
| **RENOVATION/ UPGRADATION** | | | | |
|  | ITEM | UNIT | AREA | COST |
| 1 | ADMINISTRATIVE BUILIDING |  |  | 25 LAKHS |
| 2 | TOILETS |  |  | 3 LAKHS |
| 3 | AUDITORIUM |  |  | 30 LAKHS |
| 4 | CAMPUS DEVELOPMENT |  |  | 10 LAKHS |
| 5 | CLASSROOM FLOORING |  |  | 02 LAKHS |
|  | **TOTAL** |  |  | **70 LAKHS** |
|  |  |  |  |  |
| **NEW EQUIPMENT (30%)** | | | | |
| 1 | STUDENT BENCHES | 200 |  | 500000.00 |
| 2 | WHITE BOARD | 15 |  | 150000.00 |
| 3 | WOODEN CHAIRS | 30 |  | 120000.00 |
| 4 | WATER COOLER | 2 |  | 100000.00 |
| 5 | R.O. SYSTEM | 2 |  | 60000.00 |
| 6 | LIBRARY READING TABLE | 10 |  | 100000.00 |
| 7 | XEROX MACHINE - | 2 |  | 90000.00 |
| 8 | CLEANING Machine | 1 |  | 150000.00 |
| 9 | PODIUM | 25 |  | 150000.00 |
| 10 | MAGAZINE STAND(WOODEN) | 3 |  | 45000.00 |
| 11 | FAX MACHINE | 1 |  | 32000.00 |
| 12 | PRINTER + SCANNER | 5 |  | 60000.00 |
| 13 | LIBRARY SOFTWARE | 1 |  | 30000.00 |
| 14 | EPABX SYSTEM | 1 |  | 350000.00 |
| 15 | STEEL KUPBOURD | 4 |  | 30000.00 |
| 16 | STEEL BANCHESC | 2 |  | 36000.00 |
| 17 | SPORTS EQUPMENT |  |  | 600000.00 |
| 18 | CCTV MONITER CABINE(WOODEN) | 1 |  | 18000.00 |
| 19 | INVERTR | 2 |  | 70000.00 |
| 20 | PLASTIC CHAIRS | 100 |  | 100000.00 |
| 21 | BOOKS & JOURNALS |  |  | 500000.00 |
| 22 | LABORATORY EQUIPMENTS (DELL) |  |  | 500000.00 |
| 23 | PSYCHOLOGY LAB EQUIPMENTS |  |  | 500000.00 |
| 24 | COMPUTER LAB EQUIPMENTS |  |  | 500000.00 |
| 25 | 20 LAPTOPS PER FACULTY |  |  | 1200000.00 |
| 26 | OTHER |  |  | 9000.00 |
|  | **Total** |  |  | **6000000.00** |

**Chapter-5**

* **COMPONENT 8**
* **RESEARCH, INNOVATION AND QUALITY IMPROVEMENT**

For the year 2015-16 we are proposing a grant of Rs. 120 crores for the following activities

financial breakup of the activities is as given below:

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Activity** | **Amount (in Crores)** |
| 1 | PLAN FOR RESEARCH AND INNOVATION DEVELOPMENT | 0.10 |
| 2 | PROCUREMENT OF HIGH QUALITY RESEARCH BASED E-RESOURCES | 8 |
| 3 | INNOVATION HUBS FOR SOCIAL SCIENCE AND HUMANITIES | 12 |
| 4 | FACULTY AND STUDENT EXCHANGE PROGRAMMES | 10 |
| 5 | GUJARAT STATE RESEARCH DATABASE | 0.80 |
| 6 | GUJARAT STATE MINOR RESEARCH PROJECT | 20 |
| 7 | POST-DOCTORAL CENTRE | 12 |
| 8 | RESEARCH-BASED LEARNING PROJECT | 6.5 |
| 9 | POST-DOCTORAL FELLOWSHIP | 3 |
| 10 | INITIATIVES TO SCALE UP INDUSTRY ACADEMIA PARTNERSHIP | 3 |
| 11 | PROMOTION OF RESEARCH AND ENTREPRENEURIAL ACTIVITIES | 8 |
| 12 | INDUSTRIAL AND ACADEMIC EXPOSURE VISIT FOR STUDENTS | 3 |
| 13 | PROGRAMME TO ATTRACT HIGH QUALITY NATIONAL FACULTY | 8 |
| 14 | SCIENCE PARK AND INSTRUMENTATION FACILITY | 5 |
| 15 | FULLY–FUNDED DOCTORAL FELLOWSHIP | 2.6 |
| 16 | UPGRADING LIBRARY AND LABORATORY FACILITIES | 8 |
| 17 | IDENTIFYING DEPARTMENTS OF CRITICAL IMPORTANCE AND MOVING THEM INTO A POSITION OF WORLD LEADERSHIP | 10 |
| **GRAND TOTAL** | | **1,20,00,00,000** |

**1. PLAN FOR RESEARCH AND INNOVATION DEVELOPMENT**

**Objective**

* To develop plan for research development in Gujarat.
* To develop planning and coordination of all Research activities.
* To promote partnerships and cooperation with research institutions, particularly with local education research institutes and education centers.
* To introduce Research Hubs which will act as Resource Database—a user-editable database designed to map complicated, multi-disciplinary, academic/practitioner fields. The Resource Database is a cross between a wiki and a social networking site and provides research communities ways of understanding and navigating the complex fields in which they work.
* Overall coordination will be done by KCG.

**Activities**

* Hiring of manpower for development and implementation of plan.
* External Agencies will be involved for development of comprehensive plan for research and innovation.
* Formation of committee for development of comprehensive plan for research and innovation.
* Consultation meets will be organized with researchers and field experts.

**Outcome:**

* Facilitate collaboration in research
* Securing research resources and providing research support
* Offering a sense of community and promoting continued learning.

**Cost structure**

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Particulars** | **Amount (in Rs.)** |
| 1 | Hiring of Manpower | 3,00,000 |
| 2 | Consultation meets | 2,50,000 |
| 3 | External Agencies | 3,50,000 |
| 4 | Printing | 1,00,000 |
| **Total** | | **Rs. 10,00,000** |

**2.PROCUREMENT OF HIGH QUALITY RESEARCH BASEDE-RESOURCES**

**Objective**

In today’s scenario, the vision of library is changing from Print format Resources to Digital Format. Since Internet has turned into a biggest source of information (Digital Content) with widest coverage and the fastest access. Therefore, for Research Scholars, use of E-resources is prerequisite for Data Collection and Analysis domain. Hence, the main objective to procure high quality of Research Based E-resources are to increase the wealth of Researchers by making them avail with fond of Digital contents in different forms that provides great opportunity to the Libraries of three Universities and Researchers to grow and develop their collection of knowledge in the ways that was not previously possible.

* **Varieties of e-resources**
* Different forms of E-resources that can be made available in Libraries are enlisted below:

1. **E-Books**: A [book](http://en.wikipedia.org/wiki/Book)-length publication in digital form, consisting of text, images, or both, readable on electronic devices. Although sometimes defined as "an electronic version of a printed book".
2. **Research Based Software:** It consists of collection of various Statistical, Data Analytical and Interpretation Tools. For Example: SPSS, MiniTab, Systat, etc.
3. **E-journals:** E-journals are intellectual magazines that can be accessed via electronic transmission that is they are usually published on the Web.
4. **Databases (A-Z):** A structured set of data to find references to the articles, Audio/Visuals and certain other types of publications link from the search of Researchers.
5. **CDs/DVDs:** Content in Audio and Video Format will also be made available for Researchers to go through it.
6. **Library Catalogs:** Libraries will provide access to their catalogs from their web sites. They will also provide information about their holdings into larger databases The Library provides links to these catalogs under the "Catalogs" section on its web site.
7. **Statistical Sources:** The Library will have access to a variety of subscription databases which provide economic data or statistics. One will be able to locate these resources through the Library's[Database Finder](http://www.lib.uchicago.edu/dbfinder), the [Library Catalog](http://www.lib.uchicago.edu/h/1), or through many of the Library's [Research Guides by Subject](http://www.lib.uchicago.edu/e/su/).

**Procurement process**

Digital content is complex and expensive and therefore it is important that librarians and suppliers develop services and systems that procure, deliver and fully exploit the available content in the most cost-effective way.

1. **Discovery of Sources of Digital Contents:** 
   1. Identification of E-contents as per the need of institutes/Universities.
   2. Identification of the sources of E-contents to procure from.
   3. Identification of the procedure to approach the suppliers and their norms.
2. **Product Consideration and Trial processes:**
   1. Arrange the record details for product trial processes in libraries.
   2. Promote the trial to faculties.
   3. Gather license and pricing Information of the Product.
   4. Seek the feedback on the value of the Product/E-resource.
3. **Procurement:**
   1. Negotiation for license from suppliers.
   2. Technical feasibility (e.g. software/hardware requirements etc.)
   3. Purchasing of Product/E-resources.
4. **Implementation:** 
   1. Authentication set up\
   2. Configuration (including link resolver, proxy server set up, etc.)
   3. Adding to Web portals/Web pages.
5. **Ongoing Maintenance:** 
   1. Updating holdings lists;
   2. Monitor access and its usage.
   3. Risk Management
6. **Evaluation:** 
   1. User/Faculty feedback
   2. Downtime analysis

**Fund Allocation**

* ***Rs. 1 crores*** each will be allotted to these 8 universities of Gujarat i.e. ***Rs. 8 Crore****s in total*, for procurement of High Quality Research based E-Resources in their respective Libraries.

**3. INNOVATION HUBS FOR SOCIAL SCIENCE AND HUMANITIES**

**Introduction**

Research is very critical to the social and economic development of the society. Major goals of these innovation hubswillbe to promote socially relevant research in the field that adds value in a way that helps in meeting the various challenges of the society and result in advancement of knowledge.

In the current scenario, Research is going on in various ways without any idea of the immediate need to the society or that of the business or industrial sectors.Thiscentre is planned to overcome this issue by enabling students and faculties to identify and take-up need-based challenging research programmes aiming at translating their research output for the benefit of society, industry and country.

It will focus imparting proper direction to researchers in taking up projects and getting sufficient funding for need-based research not only from public funded agencies but also from industries. These centers will be able to bring social science and humanities, society, technology, industry and business to a common platform to make education and research, an innovative and productive, socially committed process that truly support actual economic growth of the nation.

With the introduction of this concept, this center as a crucial organization entrusted with human resource development can prove that research and innovation is one of its basic necessities to expand knowledge and bring solutions to various social and economic challenges.

* **Objectives of the Centers**

**1. Improve Practice in the field of Social Science and Humanities:**

Such centers can suggest ways of improving practice that have been verified with many applications and by many different types of people, which is difficult for practitioners. Generally practitioners are the best people to know what changes are required in practice but they don’t have that much time to do such research. Incubation and innovation center will help in bridging that gap.

**2. Address Gaps:**

As society is getting more and more vibrant, challenges are also becoming more complex, which has created huge gaps in the knowledge which needs to be bridged through such incubation center and innovation hubs. Research can address areas in which little is known and more is yet to explore.

**3. Expand Knowledge:**

One very important objective of such center will be to expand the knowledge of social science and humanities in every field and whichever the way it is possible. Centers will work to expand the knowledge which may add value for further research and which also help in solving various challenges faced by society and industry. Research can allow us to extend what we know in ways we never conceived.

**4. Add Voices of Individuals to Knowledge:**

Such centers can add an important perspective for different learning types. This will certainly help as reflection of our increasingly heterogeneous mass of students and research will help to revise theory and practice to reflect different student needs.

**5. Quality manpower and experienced advisors:**

Incubation center and innovation hub will give a common platform to all those who wants to contribute in the field of research and innovation. It will help in bringing all the best brain at one center and get the best out of them.

**6. To become a link among various stake holders**

To bring fruitful result of the research conducted and to have its proper application, it is important that all the stake holders like, researcher, students, industries are brought together at one platform.

* **Activities**

Following are the major activities that will be undertaken in the centers

* Organizing conferences and workshops
* Promote and facilitate research
* Create library through research papers, books, journals
* Provide library facilities and other services which are necessary to conduct research
* To improve the quality and quantity of the research and bridge knowledge gap
* To work as advisory body for curriculum reform
* Financial assistance to those who wants to conduct research

**Outcomes**

* It will help to promote research in the field of social science and humanities
* It will facilitate all those who wants to conduct research in this field
* Innovation will get boost though such incubation center and innovation hub
* It will help to generate knowledge through conferences and other activities
* Centers will help to improve the quality and number of research that are conducted in this field
* Centers will work as backbone of research in the field of social science and humanities
* It will provide opportunities and facilities to students, academicians, professors and industry people who wants to conduct research in this field
* Centers will play a key role in creating knowledge society
* It will help to bring solution to various challenges that are faced by society and bridge the gap between theory and practical through research and innovation
* **Beneficiary Universities:**

1. Sardar Patel University

2. South Gujarat University

3. Hemachandracharya North Gujarat University

4. Maharaja krishnasinhji Bhavnagar University

* **Financial Breakup:**

|  |  |  |
| --- | --- | --- |
| **Sr.No.** | **Particulars** | **Amount(In Crores)** |
| 1 | Fund for research | 0.40 |
| 2 | Projector, computers, internet and other equipments | 0.80 |
| 3 | Books and Journals | 0.80 |
| 4 | Conferences and other activities | 0.40 |
| 5 | Furniture and other resources(Infrastructure) | 0.50 |
| 6 | Contingency fund | 0.10 |
| **TOTAL** | | **Rs 3 Crores** |

*Rs 3 Crores each will be given to the 4 beneficiary Universitiesi.e. Rs 12 crores in totality*

**4. FACULTY AND STUDENT EXCHANGE PROGRAMMES**

**FACULTY EXCHANGE PROGRAMME**

* **Objective**

Education Department of Gujarat proposes a Faculty Exchange Programme to enhance the quality of teaching and research in the state of Gujarat.

**Establishment and Management of the Faculty Exchange Programs**

Under this programme the selected faculty members from the state will visit reputed national level universities for a period of about two months.

The invited national experts are also expected to stay approximately for about two months and interact with the teachers and students. Since the objective of the scheme is to improve quality of teaching and research in the state, the focus would be on the exchange with most outstanding foreign institutions.

**Implementation of Exchange Programme**

1. At least four (2) months prior to the exchange, the details of the exchange as negotiated by the parties hereto will be finalized by the institution in the form of an agreement, which will be monitored by KCG
2. An agreement of the exchange programme should include among other things:

(i)Names of the faculty members selected for the exchange programme

(ii)Maximum Period of the exchange

(iii)Roles and Responsibilities of the exchanged faculty members

1. The copy of agreement shall be submitted to KCG.
2. Applications shall be invited from the experts desiring to apply for the exchange programme along with the detailed CV supported by evidences.
3. The exchange programme will be applicable only for one semester.

* **Eligibility Criteria**

The candidate selected for the exchange programme:

* Must have a Ph.D. or an equivalent degree
* Minimum 10 years of teaching and research experience
* Must have published at least 10 research papers in peer reviewed and outstanding national and international journals and/or books published by the reputed publishers.

The quality of the research paper and/or books shall be vetted and ranked by a committee of three outstanding scholars.

* Must have made a remarkable contribution in his/her field as judged by committee.
* Faculty member below the age of 55 years shall be given preference
* The faculty member with the highest API will be given priority

|  |  |
| --- | --- |
| **Costs Structure** | |
| **For a national level Faculty Travelling to Gujarat** | |
|  | A total of 25 faculties will be given the financial aid under the faculty exchange programme wherein a lump sum of Rs. 10, 00,000 to each faculty will be provided. |
| Host University will provide accommodation free of cost or at the minimum rates. |
| **For a state Faculty Visiting other national Universities/colleges** | |
|  | A total of 25 faculties will be invited under the faculty exchange programme and Rs. 10,00,000 to each faculty will be provided |
| Accommodation will be provided by host university free of cost or at the minimum rates. |
| **General Rules** | |
|  | Faculty travelling must possess Health Insurance active during the span of exchange period and fulfill all the necessary requirements. |
| **Total 50 faculties** | |

* **STUDENT EXCHANGE PROGRAMME**

Under this scheme we aim to provide an opportunity to all the selected students of Gujarat to visit national Universities and colleges for maximum 2 months that will help in their overall development through enhancement of following skills:

## Educational

* International learning and knowledge propels students towards acceptance and understanding of an array of different cultural and community perspectives.
* Language acquisition will be achieved through practical immersion.
* Awareness and adoption of alternative, multi-faceted approaches to learning.
* Analytical and problem solving skills.
* Enhanced interest in global issues as well as a broader general knowledge.

**Personal**

* Self-development and awareness which will lead to enhanced self-confidence and self-esteem.
* Maturity and social poise, fuelled by the necessity to confront challenges outside a familiar support network and comfort zone.
* A tremendous sense of accomplishment upon completion encourages students to develop independent opinions, make informed decisions and strive to attain fresh goals.

**Long-Term**

* Students who go on to tertiary studies find themselves more comfortable in ‘foreign’ environments.
* Prospective employers in almost every field look favorably upon experience gained while living overseas and knowledge obtained of another language and culture.
* Increased pressure to communicate and relate to others develops an awareness of group dynamics and personal sensitivity towards others.
* Successful program completion represents an excellent measure of personal flexibility, encompassing an ability to reach compromise, focus and succeed through challenging times.

**Implementation of Exchange Programme**

1. At least four (2) months prior to the exchange, the details of the list of students selected for exchange programme as negotiated by the parties hereto will be finalized by the university in the form of an agreement, indicating clearly the activities of the students and the benefits of the student exchange program to the university.
2. An agreement of the exchange programme should include among other things:

(i)Names of the students selected for the exchange programme

(ii)Maximum Period of the exchange

(iii) Roles and Responsibilities of the exchanged students

1. The agreement shall be submitted to KCG.
2. The proposal for exchange programme shall be widely circulated among all the students

* **Eligibility Criteria**

The candidate selected for the exchange programme:

* Must show intellect to publish research papers in peer reviewed and outstanding national and international journals and/or books published by the reputed publishers.
* Students should also demonstrate what they can offer the host university, plus evidence of relevant extra-curricular activity.
* For study at a host university where the language of instruction will not be English, participants should evidence an Advanced Higher or 'A' level certificate in that language
* For participation in the International Exchange programme students should have no mark lower than a ‘C’ in any of their courses. As application takes place in Semester 1 of the second year, only first year results will be taken into consideration.
* Students are normally required to submit a personal statement outlining their motivation for applying, tailored to the universities for which they wish to apply.

|  |  |
| --- | --- |
| **Costs Structure** | |
| **For a national level Student Travelling to Gujarat** | |
|  | A total of 50 students will be given the financial aid under the student exchange programme wherein a lump sum of Rs. 5,00,000 to each faculty will be provided. |
| Host University will provide accommodation free of cost or at the minimum rates. |
| **For a Student from Gujarat Visiting Indian Universities/colleges** | |
|  | A total of 50 students will be invited under the student exchange programme and Rs. 5,00,000 to each faculty will be provided |
| Accommodation will be provided by host university free of cost or at the minimum rates. |
| **General Rules** | |
|  | Students travelling must possess Health Insurance active during the span of exchange period and fulfill all the necessary requirements. |
| **Total 100 students** | |

**Financial Structure:**

|  |  |  |
| --- | --- | --- |
| **Particulars** |  | **Amount (in Rs.)** |
| Faculty Exchange Programme | 50 \* 10,00,000 | Rs. 5,00,00,000 |
| Student Exchange Programme | 100 \* 5,00,000 | Rs. 5,00,00,000 |
| **Grand Total** | | **Rs. 10,00,00,000** |

**5. GUJARAT STATE RESEARCH DATABASE**

**Background**

One of the strategic priorities of Gujarat has been strengthening research and innovation in institutions of higher education. Development of Research compendium comprises of research related works of Doctorate students in Gujarat.Keeping in view the increasing demand for strengthening institutions of higher education through research and poor profile of Gujarat in funded research projects, we are planning to roll out work on creation and development of research based database of doctoral student work in Gujarat.

**The Gap**

One of the methodologies for strengthening higher education is to improve the process of knowledge creation through research. Strengthening higher education involves strengthening (i) Research Database processes, (ii) Doctorate work and (iii) people involved in the processes. Improved research structures and subject knowledge of the Doctoral student in higher education are some of the important pre-conditions of strengthening higher education.

**Scope of intervention**

Data from the 9 conventional Universities including the GTU, Deemed universities, Private universities, Agricultural universities, research institutes, Government colleges, Grant in Aid Colleges and all self-finance colleges and other institutes of higher education from 33 districts of Gujarat will be captured for creation of research database doctoral student work in Gujarat.

**Objectives**

* **Creating a culture of research among colleges and universities of Gujarat state.**

Gujarat carries a legacy of culture rich history and a connection with science and social sciences (i.e. ISRO, NRCG and SPIESR) which allow it to have a wide scope of expanding the research wing in these as well as in the field of Languages.

* **To create research database of doctoral – student work in Gujarat.**

Research database will help doctoral students who are willing to do research, and who are willing to study further with support of a Guide to complete their PhD.

* **To create a community based network of mentors and participants teachers.**

A culture of Research where researchers will get a common platform to view their performance and check their actual standing by way of comparative and rank based analysis.

* **Strengthening institutions of higher education**

Organic growth of educational institutions is possible when each and every faculty is engaged with research and strengthening and connecting institution by creating a common platform for all educational institutes.

* **Creation and development of research based database**

Constant Up gradation of database on periodic basis will keep a check on the rankings and also the primary objective behind creation of database will be supported.

* **Meeting a growing demand for quality of higher education**

Gujarat State Research Database is proposed as the first ever mega database, which will leave a benchmark in the field of education.

* **Research Parameters**

The parameters will decide the quality of the research database and hence they are decided with a view to ensure accuracy of analysis and maximum scope of comparison in the database. The components of the scope of the research database will be:

* Research Paper
* Articles
* Minor Projects
* Major Projects
* Patents
* Copyrights
* Consultancy
* PhD Students
* National Conferences
* International Conferences
* Research Methodology Workshops
* **Cost structure**

The total cost is estimated to be **Rs. 80, 00,000/-**

The break-up will be as follows:

|  |  |  |
| --- | --- | --- |
| **Expense Head** | **Sub total** | **Total (Rs.)** |
| **Salary** |  |  |
| Research officers | 10 |  |
| Pay scale | Rs. 40,000 |  |
| Months | 12 |  |
|  |  | **Rs. 48,00,000** |
| **Travelling & Other** |  |  |
| Travelling | Rs. 5,00,000 |  |
| Miscellaneous | Rs. 2,00,0000 |  |
|  |  | **Rs. 7,00,000** |
| **SPSS (Enterprise Edition)** |  |  |
| Unit | 1 | **Rs. 10,00,000** |
| **Statics Expert for SPSS** |  |  |
| Expert | 2 |  |
| Salary | Rs. 50,000 |  |
| Months | 2 |  |
|  |  | **Rs. 2,00,000** |
| **Laptops** |  |  |
| Cost | Rs. 30,000 |  |
| Unit | 10 |  |
|  |  | **Rs. 3,00,000** |
| **Printing & Stationary** |  | **Rs. 5,00,000** |
| **Web Portal** |  | **Rs. 5,00,000** |
| **GRAND TOTAL** |  | **Rs. 80,00,000** |

**6. GUJARAT STATE MINOR RESEARCH PROJECT:**

**1.INTRODUCTION**

With a view to strengthen higher education through popularizing research in institutions of higher education in Gujarat several workshops have been conducted to build capabilities of teachers for actively engaging themselves in research projects. We are planning to launch Gujarat State Minor Research Grant2015-16 under which young teachers/scholars of Gujarat will be provide financial assistance to conduct research projects on specific problem / issue related to Gujarat**.**

**2. OBJECTIVES**

* In view of high demand of minor research projects in Gujarat, it is necessary to make sufficient arrangement to create long term research mindset among young scholars in the state in order to cater the following emerging needs.
* To cater masses at low cost minor research projects through young minds may create new Gujarat within 5 to 10 years.
* It is extremely necessary to provide gainful employment, independently or as self-motivated businesses, through development of different new products in the area of festivals, daily use, services, repairing and some new creations, minor research projects are extremely useful.
* It is intended that small research projects will certainly help our backward region’s problems in agriculture, water management, fertility of land, development of forest products, to cater new marketing methods, to enhance sales of existing regional products, to give new thoughts in production, distribution, preservation etc.
* Large scale industries have structured research inbuilt houses, which require large investment and are very costly. The end products target only the well-to-do classes. Minor research projects, will develop research and innovation and help thousands of small products, process, and entrepreneurs and serve masses, which will also result in creating research scholars in large numbers, for the new Gujarat of the 21st century.

**3. THE PROGRAMME:**

Under Gujarat State Minor Research Grant 2015-16, college and university teachers are invited to submit research project proposals that address a particular issue relevant to Gujarat.

**4. ELIGIBILITY/TARGETGROUP:**

Financialassistance will be providedto teachers working at Universitiesand Colleges (Government/ Grant-in-Aid) as permanent, whowishtoundertake, alongwith teaching work,aResearch Project on a theme/issue/aspect relevant to Gujarat. The Upper Age limit of the applicant must not exceed 50 years of age.

**5. TERMS AND CONDITIONS:**

1. Itwouldbethere possibility ofthePrincipalInvestigatorandthehostInstitution fortotalaccountability oftheproject.Aftercompletionofoneproject(dateoffinalizationof accountsoftheproject).ThePrincipalInvestigatorshouldpublish twopapers in reputed journal in the form of Books/Article/Presentation inseminar etc. from the said project completed.
2. Colleges/Universities/ Institutionsforwardingtheproposalshouldhaveadequateresearchfacilities.
3. Teacher awardees shall be required to submit Audited Financial Statements to KCG on completion of the research project.
4. Teacher awardees shall be required to submit (i) a detailed report in a prescribed format, (ii) relevant vouchers, documents, bills and other documents related to research and (iii) original data collected for research to KCG. Research Report shall be a copy right of the awardees.
5. Teacher awardees shall be required (i) to engage at least 03 to 05 students in the proposed research work and (ii) to mention names of these students as co-authors in two research papers published out of the research work.
6. The Principal Investigator will submit Monthly report to KCG which will include academic and financial details.
7. Funds under this Programme will not be available for any other capital expenditure like building, major equipments, furniture, purchase of vehicles or long term hiring of vehicle.
8. Research project must be completed within a period of maximum two years from the date of grant awarded.
9. Any paper or abstract published as a result of work done from this grant must mention the source of funding.

**6.NATUREOFASSISTANCE:**

Thequantumofassistanceforaresearchprojectwillbeup to Rs. 2Lakhs for social sciences andup to Rs. 4 lakh for science which does not have support from Industry. A research proposal having financial support of at least 25% of total cost of research project from industry will also be eligible for selection process. Such Teachers are also encouraged to apply.Rs. 2000 per month per student will be available to handle specific aspects of research project for a period of one year.

Project Proposal would include actual travel support to students for handling/conducting research project. Travel by students will be undertaken by Bus of Sleeper Class Railway.

Research Project in Sciences including Engineering &Technology, Humanities ,Social Science, Languages,Literature,Arts,Law, Library Science and Physical Education and allied disciplines are included under this scheme.

Areas in which research can be done are cited below:

* **ARTS**
* History
* Sociology
* Economics
* Political Science/Civics
* Music
* Psychology
* Hindi
* Sanskrit
* English
* Gujarati
* Education
* Arts
* Geography
* Philosophy
* Journalism
* Home science
* Fine Arts
* Anthropology
* Public Administration
* Other Languages
* **SCIENCE**
* Physics
* Chemistry
* Botany
* Zoology
* Biotechnology
* Microbiology
* Bioinformatics
* Pharmacy
* Agriculture
* Mathematics
* Electricals
* Mechanicals
* Computer Science
* Information Technology
* Electronics
* Environmental Science
* Metallurgy
* Engineering
* Waste management
* Disaster management
* Genetic Engineering
* Applied Physics
* Geology
* Geography
* Applied Chemistry
* Applied Mathematics
* Medical Science
* Fire and safety management
* Molecular Biology
* Ecology
* Cell Biology
* Plant and tissue culture
* Plant Breeding
* Astronomy
* **COMMERCE**
* Business Management
* Banking and Insurance
* Cosmic Certified Account
* Retail Management
* Accounting
* Financial Management
* Marketing Management
* Portfolio management & Investment management
* Cost accounting
* Taxation
* Human Resource management
* Cost and work Account
* Business Economics
* Commercial Law
* Corporate Accountancy
* Entrepreneurship Development
* Business Communication
* Customer service management
* International Accounting
* Statistics
* International Business
* E- Commerce
* DBMS
* Derivatives
* Insurance and Risk Management
* Business Ethics
* Organizational Behaviour
* Corporate Social Responsibility
* Service Marketing
* Corporate Restructuring & Strategic Financial Management
* Financial Markets

**Non-RecurringGrants**

a.Equipment (Minorequipmentsonly)

b. BooksandJournals

Theequipmentaswellasbooks&journals grantsmaybeutilizedtoprocuretheessential equipmentsandbooks&journalsneededfortheproposedresearchwork.

Theequipments andbooks&journalsacquiredbythePrincipalInvestigator under the Gujarat State Minor Research Grant 2015-16mustbedepositedto beneficiaryUniversity/College/Institution orinthedepartmental libraryorthecentrllibraryafter the completionoftheproject whichwillbetheinstitutional property.

**RecurringGrant**

**(a)Hiring Service**: This is meant for specialized technical work such as sample analysis ,for which the University/Institution either has no infrastructure or such services are available on payment basis.

**(b)Contingency**: The admissible contingency grant may be utilized on spares for apparatus ,photo-stat copies and micro films ,typing, stationary ,post age, telephone calls ,internet ,fax, computation and printingneeded for the project.Expenditure to wards the audit fee may also be claimed under contingency head.

**(c)Special Needs**: Assistance may be provided for any other special requirement in connection with the project which his not covered under any other‘Head’ofassistance under t he scheme.

**(d)Chemicals and Consumables**

To meet expenditure on chemicals, glass ware and other consumable items.

**(e)Travel and Field Work**

The amount allocated under the head travel/field work is to be utilized for data collection and collection of other information such as documents and visit to libraries within the general scope and sphere of the ongoing project. This should not be used for attending conferences, seminars, workshops and training courses etc. They may also avail special casual leave/duty leave for field work/collection of data asper College/University rules.

(**f)Re-Appropriation**: The Principal Investigator may re-appropriate maximum 20 percent of the recurring grant allocated under each head with the permission of Registrar/Principal under intimation to the KCG.

**(g)Tenure and Implementation:**

Proposed project will be for duration of maximum two years.

The effective ate of implementation of the project will be mention Edin approval-cum- sanction letter.

**7.PROCEDURE FOR APPLYING**

All eligible eachers in colleges/university may submit their Research Proposal along with an updated resume which will be assessed by the Evaluation Committee institute by the KCG Office, Ahmedabad.

Interested teachers are requested to submit their research proposal in prescribed format duly forwarded through the principal to:

GUJARAT STATE MINOR RESEARCH GRANT2014-15

Knowledge Consortium of Gujarat

Prajna Puram, Opp PRL,

Beside L D College of Engineering, Ahmedabad

**Time Line:**

Announcement of the Gujarat State Minor Research Grant …….

Last date for submitting Research Proposals: …….

Announcement of Results: …….

Release of Grants: …….

**8.PROCEDURE FOR APPROVAL**

The received proposals duly forwarded by the Colleges /Universities will be assessed by a Committee of experts constituted by KCG. The final decision will be taken by the KCG on the basis of recommendations made by the Committee and the availability of funds under the scheme.

Expert Committee shall evaluate proposals on the basis of:

1. Relevance of topic to Gujarat
2. Problem Identification
3. Literature review
4. Expected benefit of the proposed research to Gujarat and other relevant parameter.

**9.PROCEDUREFORRELEASEOFGRANTS**

The grant will be released in the name of Principal Investigator. Principal Investigator will be solely liable for conduct of research project and all related financial matters.

1. Copy of the final report of project along with soft copy. (Annexure-VII)

2. A consolidated item wise detailed statement of expenditure incurred during the complete project period in the prescribed proforma (Annexure II & III) duly signed and sealed by the Principal and the Principal Investigator

3. A consolidated Audited Utilization Certificate for the amount actually utilized towards the project duly signed and sealed by Chartered Accountant, College Principal / Registrar of University and the Principal Investigator in the prescribed proforma. (Annexure-IV)

4. The unutilized grant, if any, may be refunded immediately through demand draft drawn in favour of the Knowledge Consortium of Gujarat.

It is mandatory to post the Executive summary of the report, Research documents, monograph, academic papers published under Research Project on the website of the University/College.

The Principal Investigators/Institutions is expected to settle the accounts immediately on completion of the project. In case the balance grant, if any, is not claimed within *six* months from the date of completion of the project, the same will lapse and no representation will be entertained on this behalf.

**10. GENERAL**

(a) Project is not transferable in any case.

(b) If the PI is transferred from his/her original place of work to another Institution No Objection Certificate should be furnished for the transfer of the project from both the Institutions stating that necessary facilities will be provided by the Institution in which the awardee is transferred for the smooth functioning of the project.

(c) If a Principal Investigator fails to complete the project, he/she has to refund the entire amount released with interest.

(d) No extension in tenure is permissible in any circumstances.

**11. MONITORING AND EVALUATION**

Principal Investigator will be required to submit quarterly progress report describing the progress made in the research project along with contribution of research students in conduct of research project. (Annexure- V & VI).

Principal Investigator will be required to make presentation of progress made in research project half yearly. Students engaged in the research project will also be required to make presentation of their contribution in implementing research project.

Principal Investigator will be required to provide following details of students engaged in research project:

Name, email, phone, programme of study, institution where student is enrolled, year of study, activities conducted by research students, comments on the performance of students

##### (Annexure I)

|  |  |
| --- | --- |
| Proposal Number:  (assigned by KCG | Date of receipt: |

## APPLICATION FORM

|  |  |  |
| --- | --- | --- |
| C:\Users\Ravi\Desktop\Djay\LOGO\kcg.JPG | GUJARAT STATE MINOR RESEARCH PROJECT 2015-16 | **Knowledge Consortium**  **of Gujarat**  **Department of Education** Opp. PRL, Beside L.D.Engg.College, Ahmedabad,  Gujarat, India  Phone: +91 79 26302067, Fax No: 079 – 26302077  website: www.kcg.gujarat.gov.in |

Note: The Candidate would be eligible if:

1. He/She is employed on regular/permanent post as Assistant Professor in Gujarat with less that 10 years of

Experience

1. Research project must be addressing theme/issue/problem of Gujarat.
2. Must involve students in the project.

#### Application Form

|  |  |
| --- | --- |
| Project title |  |
|  |  |
|  |  |
| **Principal Investigator\*** |  |
| Name & Address of College/University: |  |
|  |  |
|  |  |
|  |  |
| Type of Institution:(Govt. College, Grant in Aid college, Self Finance Institution) |  |
| Age (as on 15th February2014): |  |
| Telephone: |  |
| Fax: |  |
| E-mail: |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Signature |  | **Date of Submission** |  |

\*Name of the scientist being responsible for the coordination of research and for the submission of the application. The Principal Investigator must be an employee of the College/University receiving the grant.

|  |  |
| --- | --- |
| Full Name |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Signature |  | **Date of Submission** |  |

**100 Curriculum Vitae of Principal Investigator**

(attach additional pages if necessary)

Part I

|  |  |
| --- | --- |
| Surname |  |
| First Name |  |
| Birth date (dd/mm/yy) |  |
| Nationality |  |
| Position title |  |
| Name of Institute |  |
| Full address of College/University |  |
|  |  |
| Tel: |  |
| Fax: |  |
| E-mail: |  |

Have you previously received any Fellowship from any funding agency? YES NO

If yes,

please indicate whether it was a short-term fellowship pre-doctoral fellowship post-doctoral fellowship

Part II - Education (begin with initial professional education)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr. No. | Degree/Examination | College & University | Month and Year | Grade/ Percentage/ Class | Subjects/Specialization |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Part III – Current & previous employment

Part IV – Publications (if any)

**200 PROJECT PROPOSAL**

201 Title (To be specific within the area of research)

202 Abstract (Provide a summary of your research proposal)

**300 Introduction**

Define specific research activities to be pursued during the project period and provide a comprehensive description of the significance of proposed study, relevance in Gujarat, objectives

301 Status of Research in the proposed field (Provide a critical evaluation on the status of research in the proposed field)

302 Objectives of the proposed study

303 Significance of the proposed study:

304 Relevance of the proposed study to Gujarat:

305 Expected benefits of possible findings of proposed research project to Gujarat

306 The proposal broadly belongs to which of the below mentioned focus areas: (Give a brief detail about it)

|  |
| --- |
| 1. Environmental: 2. Water Conservation: 3. Nutrition: 4. Development of Industrially Useful Application: 5. High Impact Teaching: 6. Others |

**400 Methodology**

Define specific research activities to be pursued during the project period and provide a comprehensive description of the hypothesis, sampling plan, data collection, data analysis.

401 Premises and Hypothesis:

402 Unit of Sample, Sample, Population, Universe, Sampling Plan:

403 Type of Data, Data Collection Tool:

404 Data Analysis:

|  |
| --- |
|  |

405 Plan for involving students in the propose project:

1. Number of student who will be involved in proposed project with their name , email id, phone , institution, program of Study.

2. Activates proposed to be carried out by students in the specified format:

|  |  |  |  |
| --- | --- | --- | --- |
| Sr No | Name of Student | Email, phone, year of study and programme of study | Proposed Activities |
|  |  |  |  |
|  |  |  |  |

406 Time schedule

(Specify work allotment within the time frame of the project)

i) Timeline for Project Activities:

ii) Timeline for activities of students:

407 Facilities available in the Investigating Team’s laboratory/Library/Department/College/University

(Provide a detailed list of the infrastructure and equipment available and necessary for the proposed research)

**500 Financial Contribution**

**(a) Requested to KCG (all figures to be indicated in RUPEES )**

**Total Cost of the proposed study:**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Particulars | Total Cost Rs. | | | Requested from KCG Rs. | | | Requested from Industry Rs. | | |
| 1st year | 2nd year | Total Cost | 1st year | 2nd year | Total Cost | 1st year | 2nd year | Total Cost |
| Honorarium to students |  |  |  |  |  |  |  |  |  |
| Equipment |  |  |  |  |  |  |  |  |  |
| Travel |  |  |  |  |  |  |  |  |  |
| Literature(Books and Journal) |  |  |  |  |  |  |  |  |  |
| Contingency |  |  |  |  |  |  |  |  |  |
| Hiring Service |  |  |  |  |  |  |  |  |  |
| Chemicals and glassware |  |  |  |  |  |  |  |  |  |
| Overhead |  |  |  |  |  |  |  |  |  |
| Any other items (Please specify) |  |  |  |  |  |  |  |  |  |
| **TOTAL COST OF THE PROPOSED STUDY** |  |  |  |  |  |  |  |  |  |

(b) Expected Funding from Industry/Govt Organization:

|  |
| --- |
| Give details of Finance under different Heads on yearly basis: (All Figures to be indicated in Rupees) |

#### 600 Certificate by the College/University

|  |  |
| --- | --- |
| We hereby certify that |  |
|  | (Principal Investigator’s full name) |
| is working in this College/University as |  |
|  | (position) |
| Since |  |
|  | (dd/mm/yy) |

The Principal Investigator is authorised to request the funds, which will be necessary to carry out the proposed research. Principal Investigator would be allowed to use existing research facilities and resources of the college/university for the proposed study.

|  |  |
| --- | --- |
| ***Principal/ Registrar*** |  |
|  | (Full name) |
| *Name & Address of College/University*: |  |
|  |  |
|  |  |
|  |  |
| *Telephone*: |  |
| *Fax*: |  |
| *E-mail*: |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Signature |  | **Date of Submission** |  |

|  |  |
| --- | --- |
| **Official stamp of the Collage/University (if any)** |  |

**Annexure–II**

**KNOWLEDGE CONSORTIUM OF GUJARAT**

**DEPARTMENT OF EDUCATION AHMEDABAD**

**STATEMENT OF EXPENDITURE IN RESPECT OF RESEARCH PROJECT**

1.Name ofPrincipalInvestigator \_\_\_\_\_\_\_\_\_\_

2.Deptt.ofPrincipalInvestigatorUniversity/College \_\_\_\_\_\_

3. KCGapprovalLetterNo.andDate \_\_\_\_\_\_\_\_\_\_

4.Title of the Research Project \_\_\_\_\_\_\_\_\_\_\_

5.Effectivedate ofstarting the project \_\_\_\_\_\_\_\_\_

6.a.PeriodofExpenditure: Fromto \_\_\_\_\_\_\_\_\_\_

b. Details ofExpenditure

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Item** | **Amount Approved**  **(Rs.)** | **Expenditure Incurred**  **(Rs.)** |
| i. | Books & Journals |  |  |
| ii. | Equipment |  |  |
| iii. | Contingency |  |  |
| iv. | FieldWork/Travel  (Give detailsintheproformaatAnnexure- IV). |  |  |
| v. | HiringServices |  |  |
| vi. | Chemicals &Glassware |  |  |
| vii. | Overhead |  |  |
| viii. | Anyotheritems (Please  specify) |  |  |

* 1. Staff
  2. Dateof Appointment

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr.No** | **Items** | **From** | **To** | **Amount**  **Approved**  **(Rs.)** | **Expenditure**  **incurred**  **(Rs.)** |
| 1. | Student (Laboratory/project assistants) stipend |  |  |  |  |
| 2 | Student (Laboratory/project assistants) Travel Allowance |  |  |  |  |

1.Itiscertifiedthattheappointment(s) havebeenmadeinaccordancewiththeterms and conditionslaiddownbyKCG under Small Grant in Research Programme 2013-14.

2.Ifasaresultofcheckorauditobjectionsomeirregularlyisnoticedatlaterdate,actionwillbetakentorefund,adjustor regularizetheobjectedamounts.

3.Payment@revised rates shall bemadewitharrearsontheavailabilityofadditionalfunds.

4.ItiscertifiedthatthegrantofRs. (Rupees only)receivedfromthe Knowledge Consortium of Gujarat, Small Grant in Research ProgrammeResearchProgramme entitled videKCGletterNo.. dated hasbeenfullyutilizedforthepurposeforwhichitwassanctionedandinaccordancewiththetermsandconditionslaiddownby KCG.

**SIGNATUREOF PRINCIPALINVESTIGATOR**

**(Seal) REGISTRAR/PRINCIPAL**

**SIGNATURE OF THE CO-INVESTIGATOR**

**Annexure- III**

**KNOWLEDGE CONSORTIUM OF GUJARAT**

**DEPARTMENT OF EDUCATION AHMEDABAD**

**STATEMENT OF EXPENDITURE INCURREDONFIELDWORK**

**Nameof ThePrincipalInvestigator:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Nameof the**  **Placevisited** | **Duration of the Visit** | | **Modeof**  **Journey** | **Expenditure**  **Incurred (Rs.)** |
|  | **From** | **To** |  |  |

Certified that the aboveexpenditureisinaccordancewiththe KCGnormsforResearch

Projects.

**SIGNATUREOF PRINCIPAL INVESTIGATOR**

**(Seal)REGISTRAR/PRINCIPAL**

**SIGNATURE OF THE CO-INVESTIGATOR**

**Annexure- IV**

**KNOWLEDGE CONSORTIUM OF GUJARAT**

**DEPARTMENT OF EDUCATION AHMEDABAD**

**Utilization certificate**

Certified that the grant of Rs. (Rupees\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_only)receivedfromtheKnowledge Consortium of Gujaratundertheschemeof support for Research Project entitled \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_vide KCG letter No. datedhasbeen fully utilizedfor the purpose for which itwassanctionedandinaccordance withtheterms andconditions laid down bytheSmall Grant in Research Program 2013-14,of Knowledge Consortium of Gujarat.

|  |  |  |
| --- | --- | --- |
| **SIGNATURE OFTHE** | **REGISTRAR/PRINCIPAL** | **STATUTORY AUDITOR** |
| **PRINCIPALINVESTIGATOR** |  |  |
|  | **(Seal)** | **(Seal)** |

**SIGNATURE OF THE PRINCIPAL INVESTIGATOR**

**(Seal) REGISTRAR/PRINCIPAL**

**SIGNATURE OF THE CO-INVESTIGATOR**

**Annexure V**

**KNOWLEDGE CONSORTIUM OF GUJARAT**

**DEPARTMENT OF EDUCATION AHMEDABAD**

**Quarterly and Half Yearly Report to be submitted by Principal Investigator:**

1.Title of the project:

2. Tasks accomplished so far :( Use additional Sheet)

3. Report of work done till date: (Use additional Sheet)

3. Plan of work further:

4. Time-table or milestones: (In the form of Gantt chart)

5. Deliverables:

(apart from reports/papers; identify any products, systems, hardware, software, synthesized compound etc. to be delivered at the end of the project)

6. Justification of Budget:

(For each position, item of equipment, and contingencies)

7. If the project has any industrial significance, give names and addresses of 3 industries that may be interested in the project.

8. Any other matter to be specified:

**SIGNATURE OF THE PRINCIPAL INVESTIGATOR**

**(Seal) REGISTRAR/PRINCIPAL**

**SIGNATURE OF THE CO-INVESTIGATOR**

**Annexure VI**

**KNOWLEDGE CONSORTIUM OF GUJARAT**

**DEPARTMENT OF EDUCATION AHMEDABAD**

**Student Submission**

**Reportof theworkdoneon theResearch Project.(Report tobesubmittedwithin6weeks)**

1. Name of the student:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. College/University:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Year of Study & Specilalization:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Previously involved in Project Work:(Yes/No) If Yes Specify\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Time in hours imparted for Project Work (per week):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. ProjectreportNo. 1st/2nd/3rd/Final \_\_\_\_\_\_\_\_

2.Periodofreport:fromto

3.Titleofresearch project \_\_\_\_\_\_\_\_

4.(a) NameofthePrincipal Investigator

(b) Deptt.

(c)University/Collegewherework has progressed

5.Effectivedateof startingoftheproject

6.Reportoftheworkdone: (Pleaseattachaseparatesheet)

i.Hastheprogressbeenaccordingtooriginalplanofworkandtowardsachievingtheobjective.if not,statereasons

ii.Pleaseindicatethedifficulties, ifany,experiencedinimplementingthe project \_\_\_\_\_\_\_\_

**SIGNATURE OF THE PRINCIPAL INVESTIGATOR**

**(Seal) REGISTRAR/PRINCIPAL**

**SIGNATURE OF THE CO-INVESTIGATOR**

**Annexure VII**

**KNOWLEDGE CONSORTIUM OF GUJARAT**

**DEPARTMENT OF EDUCATION AHMEDABAD**

**Annual/Final Report of the work done on the Research Project. (Report tobesubmittedwithin6weeksafter completion of each year)**

1. ProjectreportNo. 1st/2nd/3rd/Final \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.Reference No.. \_\_\_\_\_\_\_\_\_\_\_

3. Period of report: from to

4.Title of research project \_\_\_\_\_\_\_\_\_\_\_\_\_

5.(a) Name of the Principal Investigator \_\_\_\_\_\_\_\_\_\_\_\_\_

(b) De ptt. \_\_\_\_\_\_\_\_\_\_\_\_\_

(c)University/College where work has progressed \_\_\_\_\_

6.Effective date of starting of the project \_\_\_\_\_\_\_\_\_\_\_\_

7.Grant approved and expenditure incurred during the period of the report:

A .Total amount approved Rs. \_\_\_\_\_\_\_\_\_

b. Total expenditure Rs. \_\_\_\_\_\_\_\_

c. Report of the work done: (Please attach as eparate sheet)

i. Brief objectiveoftheproject

ii.Workdonesofarandresults achievedandpublications, if any, resulting from thework(Give detailsofthepapersandnamesofthejournalism whichhit hasbeenpublishedoracceptedfor publication

iii.Hastheprogress beenaccordingtooriginal planofwork andtowards achievingthe objective.if not, statereasons

iv. Pleaseindicatethedifficulties, if any,experiencedinimplementingthe project

v.If projecthasnotbeencompleted, pleaseindicatetheapproximatetimebywhichitis likelytobecompleted.Asummaryofthework donefor theperiod(Annual basis) maypleasebesenttotheCommissiononaseparatesheet.

vi.Iftheproject hasbeencompleted, pleaseenclosesummaryofthefindingsofthe study.Oneboundcopyofthefinal reportofwork donemayalso besentto Knowledge Consortium of Gujarat.

vii. Anyother informationwhichwouldhelpinevaluationofwork doneonthe project.At thecompletion oftheproject,thefirst report shouldindicatetheoutput,suchas(a) Manpower trained (b) Ph.D.awarded(c)Publicationofresults(d) other impact,if any

**SIGNATURE OF THE PRINCIPAL INVESTIGATOR**

**(Seal) REGISTRAR/PRINCIPAL**

**SIGNATURE OF THE CO-INVESTIGATON**

1. **POST DOCTORAL CENTRE:**

**Rationale**:

Postdoctoral Programme aims to enhance the skills of faculties/scholars who have recently completed their PhDs**.** The greatest benefit of a postdoctoral programme is that it can facilitate one’s research agenda. One can use the time to produce articles, make concrete progress on a book manuscript, or begin a new project and set the stage for future work. A starting professor faces numerous challenges, and the demands on their time for administrative work and teaching are enormous. This postdoctoral programme will provide exposure to academicians and scholars of Gujarat. One can use the time to produce articles, make concrete progress on a book manuscript, or begin a new project and set the stage for future work.

**Programme Overview:**

* We aim to set up a Centre in institutions exclusively focusing on the post doctoral programme which will,
* Provide effective access to learning resources of all formats required for general and research purposes.
* Aim at keeping the academic community abreast of the latest developments and will provide them with updated information on business and management.
* Provide the highest level of user satisfaction.
* This program will be for the faculties of three Conventional Universities:
  + - Gujarat University, Ahmedabad
    - The Maharaja Sayajirao University of Baroda, Vadodara
    - Saurashtra University, Rajkot

**Infrastructural Requirements:**

* This Centre will provide access to various information resources ranging from the latest management books, textbooks and CDs. It’s prompt and effective services will be in sync with the changing needs of the academic community which is moving towards the electronic resources such as e-books, e-journals and databases.
* Furniture and fixtures
* It will also offer various services like Reference Services, Research support, Circulation Services, Databases Training Support, User Guidance Service, Photocopy Service, Bibliographic Service, Document Delivery Service, Course Support, Online Catalogue Service, Selective Dissemination service through its in-house Info-products such as Course guide, Global Watch, Case Data Bank, Article Alert, CD-Watch, Placement Guide and Current Awareness Service by providing new arrivals of books, and newly Published Reports etc.

**Mission:**

* The missionof this Program is to develop the leadership potential of faculties and to position them for success as research leaders of tomorrow, positively contributing to Gujarat’s economic, social and research-based growth through a research-intensive career.
* In addition to research skills, it is important that postdoctoral fellows achieve proficiency in other professional skills important in embarking upon a successful career.
* To support the most meritorious research that contributes to the education of Gujarat.
* The programme aim to train prospective scholars to become highly skilled and innovative researcher

**Outcomes**

* The postdoctoral programme can give the chance to get up-to-date on current research as well as take the time to learn several different things related to research**.**
* One will have opportunity to become exposed to the workings of the international and multilateral policy process.
* One can devote 100% of his or her time to research and therefore are able to submit more journal articles based on his or her PhD, more grant applications, and possibly collect data to be used in future publications.
* Candidates have more flexibility than during their PhD, with none of the teaching and admin responsibilities that academics at the beginning of their research career usually have; they can travel freely to conferences and administer their own funds, working hours are almost as flexible as during their PhD.
* Research culture will be promoted through this initiative.
* Quality of research papers and journals will be published.
* More creative research work will be promoted through this Centre.

**Budget**

Each University will be given 4Crores each for making a Resourceful Centrewith best infrastructural facilities as discussed, for this Post Doctoral Programme

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr.No** | **Particulars** | **Amount** | **Annexure** |
| 1 | **Gujarat University, Ahmedabad** | Rs 4 Crores | 1 |
| 2 | **The Maharaja Sayajirao University of Baroda, Vadodara** | Rs 4 Crores | 2 |
| 3 | **Saurashtra University, Rajkot** | Rs 4 Crores | 3 |
| **Total** | | **Rs 12 Crores** |  |

1. **RESEARCH-BASED LEARNING PROJECT**

* **BACKGROUND:**

The Indian higher education sector’s aversion to research has been well-documented. The research scenario in higher education also differs considerably, both in terms of quality and quantity, when comparing India to the more developed countries of the western world. For example, the academic system in the United States of America encourages students to plunge into deep research at the school level itself, which aids the student to indulge in deeper and higher quality research in the future. This ultimately benefits the academic community as well as society at large. In order to strengthen the culture of research in India, and in order to make it emerge from its current abysmal levels, a similar academic environment needs to be introduced. For this purpose, it is considered necessary to encourage meritorious students at the Under-Graduate and Post Graduate level to pursue research and steps should be taken to provide guidance and facilities to them for the same.

* **AIMS AND OBJECTIVES:**

The immediate aim of this project is to create a research-based learning project, which gradually helps to inculcate a culture of research at the Under-Graduate and Post Graduate level in higher education in Gujarat.

Once a culture of research is inculcated in students as soon as they begin their higher education, it becomes easier to train them and introduce them to proper research methods and techniques later on. Students should understand the benefits of pursuing research and how it can benefit not just themselves but also society at large.

The long-term target is to ensure that students in Gujarat, at the Under-Graduate and Post-Graduate are not far behind their international peers when it comes to research related abilities and knowledge, are able to pursue topics of their interest without inhibitions, and are able to eventually contribute to the cultivation of a larger knowledge base, both domestically as well as abroad, as either academic scholars, professors or in roles which further encourage the spread of research among future generations.

**TARGET POPULATION:**

All first year students pursuing their Under-Graduation and Post-Graduation are eligible to apply. The projects will begin when they enter the 2nd Semester.

|  |  |  |  |
| --- | --- | --- | --- |
| No of students to be selected from Arts stream | No of students to be selected from Commerce stream | No of students to be selected from Science stream | Total number of students to be selected from 8 Universities |
| 240 | 240 | 120 | 600 |

* The total number of students selected will be 600, where240 studentswill be from Arts, 240 students will be from Commerce and 120 students will be from Science.
* 240 students in total will be from Arts, out of which 120 will be from UG level and 120 will be from PG level
* 240 students in total will be from Commerce, out of which 120 will be from UG level and 120 will be from PG level.
* 120 students in total will be from Science out of which 60 will be from UG level and 60 will be from PG level

**STEPS PROPOSED**

1. All colleges with Under-Graduate and Post-Graduate students will be eligible to apply under this project.
2. **Arts, Sciences**and**Commerce** will be the three streams on which this Project will be concentrated.
3. The objectives of the project, the goals and the incentives available shall be intimated to all the colleges and the Universities, who shall then take steps to make their student aware of the same. The incentives are as given in the budgetary table which is attached with this document.
4. 3 examination papers will be developed by Institutions; one each for topics related to Arts, Sciences and Commerce, and each shall be attended by students pursuing their first-year in Under-Graduation and Post-Graduation in the relevant course and from the eligible colleges. The RBL Project is designed to be completely optional and for those students who harbor a genuine interest in research. The selection of students will be merit-based.
5. The strategy will be as follows:

40 faculties will be selected from the entire state by the SPD to act as mentors for the groups; 16 faculties for Arts (8 for UG and 8 for PG), 16 faculties for Commerce (8 for UG and 8 for PG) and 8 for Science(4 for UG and 4 for PG).

* The Project will be evaluated, monitored and implemented at 3 different levels respectively.
* For evaluation, a committee consisting of academic scholars and professors from reputed institutions such IIT Gandhinagar and IIM Ahmedabad will be formed and they will make the final call on which research projects deserve the final Research Accolade. The papers which will be presented before these committees would be those shortlisted by the Universities at their level.
* For implementation, the TSG/KCG will be responsible and shall take care of charting out and proceeding on the basis of a cogent action plan which ensures that all the main objectives of the RBL Project are fulfilled.

1. 40 professors from across the state, 16 each from Arts, 16 from Commerce and 8 for Science respectively, will be selected, based on their ability and qualifications. Incentives for the professors will be notified to them upon the approval of their selections. These 40 professors will function as **mentors** for the students.
2. A rigorous one-time workshop will be conducted for each of the 40 mentors by KCG, in which they will be trained on how to acquaint the selected Under-Graduate students with the world of research.
3. With due consultation with industry leaders and research experts, different research topics will be compiled which and each student in each stream will be assigned one topic, (for eg. the student in Arts will be allotted one research related topic related to the Arts respectively) and will have to conduct their basic but thorough research experiments on these topics.
4. The timeline for the completion of these research projects will be 18 months
5. The progress made by each group will be evaluated through the collection of regular feedbacks from both the participating students as well as the professors. Blog reviews will also be a part of this evaluation.
6. Areview meeting will take place every 3 months at KCG, where each student will put forth their concerns, queries and the progress which they have made in the pursuit of their research topics. Talks will be held by research experts in order to guide and motivate the participants further. The concerns and progress of the teams shall be evaluated, and any changes in the future schedule, instructions and procedures will be made accordingly.
7. A **Research Symposium** will be held in the form of a gala dinner at the conclusion of the research projects. The winners of the Project competition will be chosen by the panel of industry leaders and research experts who provided the topics initially. The winners will be suitably rewarded for their efforts, and all the participating teams shall also be honored.

* **OUTCOME**
* The research project-based learning should ensure that at the end of the 18-month cycle, all participating students become well-versed with all the themes and norms of research as they finish their course, and are able to conduct their own research inquiries through established academic means in the future course of their study.
* This will create an environment of research in the colleges and universities of the state of Gujarat.
* Learning by doing research is an innovative paradigm of education. In order to enhance the quality of graduate students passing out from Gujarat we need to ensure they go beyond the limitations of traditional education which is increasingly being seen as deficient. Thus, research based learning is the need of the hour and the conceived project is first step in this direction in Gujarat.
* **BUDGET**

A budget of Rs. 6, 50, 00,000 has been estimated to be sufficient to cover the costs of the Research based Learning Project in its initial year. The financial break-up has been shown in the following pages.

**Financial Break-Up**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr.No** | **Particulars** | **Sub Total** | **Total in Rs.** |
| 1 | **Incentive for 40 selected professors who will mentor all the students of Arts(16), Science(8) & Commerce(16) for 18 months i.e. 72 weeks**  **{Rs 5000 for each week i.e. Rs72000 }** | 18\*4\*5000\*40 | 1,44,00,000 |
| 2 | **Training cost of 40 professors who will mentor students of Arts, Science & Commerce.**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Sr. No** | **Particulars** | **No. of Participants** | **Per day Cost** | **Total** | | 1 | Catering | 50 | 500 | 25,000 | | 2 | **\***TA for Resource Persons(6) and mentors | 46 (40+6) | 1,000 | 46,000 | | 3 | **\***Honorarium of Resource Persons (6)and 40 mentors | 46 (40+6) | 1,000 | 46,000 | | 4 | Stationery kit(Writing pad, Pen, File) for participants | 40 | 200 | 8,000 | | 5 | Banner | 2 | 500 | 1,000 | | **Total** | | | | **1,26,000** |   \*TA and Honorarium may vary |  | 1,26,000 |
| 3 | **Funds to be given to each of the 600 students in total for 18 months for their research projects.**  **These funds will be utilized by students for data collection based on their projects, their travelling expenses involved in data collection, for equipment that would be required by them, and for other research related works. They are free to use funds that are available to them according to their requirements. However, KCG will monitor the fund utilization done by the students.** | 600\*40,000 | 2,40,00,000 |
| 4 | **Cost of 6 Review meetings which will be held for every 3 months**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Sr. No** | **Particulars** | **No. of Participants** | **Per day Cost** | **Cost in Rs** | **Total** | | 1 | Catering | 620 | 500 | 620\*500 | 3,10,000 | | 2 | \*TA for research experts(10) and 600 students | 610 | 1000 | 610\*1000 | 6,10,000 | | 3 | \*Honorarium of Research experts | 10 | 1,000 | 10\*1000 | 10,000 | | 4 | Stationery kit (Writing pad, Pen, File) for participants | 620 | 200 |  | 1,24,000 | | 5 | Banner | 2 | 500 |  | 1,000 | | **Total cost for one meet** | | | | | **10,55,000** | | **Total cost for 6 meets(one meet will be held in every 3 months for 18 months period)** | | | | | **63,30,000** |   \*TA and Honorarium may vary |  | **63,30,000** |
| 5 | **Research Symposium/Award Ceremony**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Sr. No** | **Particulars** | **No. of Partici-pants** | **Per day Cost** | **Sub Total** | **Total** | | 1 | Catering | 700 | 500 | 3,50,000 |  | | 2 | Research Accolade for 3 students in totality i.e. 3 winner from each stream. | 3 |  | 3\*20,000 | 60,000 | | 3 | Research Accolade for 2runner-upsfrom 3 streams i.e. total 6 (2 from Arts, Commerce and Science each | 6 |  | 6\*10,000 | 60,000 | | 4 | \*Honorarium of Research experts and industry leaders for judgment. | 3 |  | 3\*3000 | 9,000 | | 5 | \*TA for research experts and industry leaders | 3 |  | 3\*1000 | 3,000 | | 6 | Banner | 2 | 500 |  | 1,000 | | 7 | Trophy for 3 students |  |  | 3\*500 | 1,500 | | 8 | Participation certificates for all the participants other than the winner students | 591 |  | 591\*50 | 29,550 | | 9 | Research Accolade for all the participants other than winner groups of worth 1000 | 591 |  | 591\*1500 | 8,86,500 | | 10 | Certificates for 3 winner students from each stream | 3 |  | 3\*100 | 300 | | **Total** | | | | | **10,50,850** |   \*TA and Honorarium may vary |  | 10,50,850 |
| 6 | **Monitoring** |  | 1,00,00,000 |
| 7 | **Entrance Test** |  | 60,00,000 |
| 8 | **Promotion Expenditure** |  | 15,00,000 |
| 9 | **Mentor Selection** |  | 10,00,000 |
| 10 | **Printing Cost** |  | 4,00,000 |
| 11 | **Misc. Expenditure** |  | 1,93,150 |
| **Grand Total** | |  | **6,50,00,000** |

**9. POST-DOCTORAL FELLOWSHIP**

* **Rationale**

Postdoctoral fellowships are research grants designed to enhance the training of people with recently completed PhDs**.** It is a wonderful opportunity to prepare for a career in academia or public history, get a strong foothold on a new research project and expand research networks**.**

The greatest benefit of a postdoctoral fellowship is that it can facilitate one’s research agenda. One can use the time to produce articles, make concrete progress on a book manuscript, or begin a new project and set the stage for future work.

A starting professor faces numerous challenges, and the demands on their time for administrative work and teaching are enormous. If, like the majority of postdoctoral, everyone has not yet secured a permanent position, he will also use the period of his fellowship to apply for jobs. In most cases he will have a host who follows his progress and acts as a mentor. This postdoctoral fellowship will provide exposure to academicians and scholars of Gujarat.

* **Objectives**

The main objectives of Post-Doctoral fellowship are:

* Postdoctoral fellowswill be able to write grant and research proposals, and to present their research in the form of teaching, conference presentations, or in publication, all at a competitive level.
* In addition to research skills, it is important that postdoctoral fellows achieve proficiency in other professional skills important in embarking upon a successful career.
* To support the most meritorious research that contributes to the education of Gujarat.
* The postdoctoral fellowship is intended to support researchers who have completed their PhD, in developing an independent, international research career.
* The fellowships aim to train prospective scholars to become highly skilled and innovative researcher
* **Outcomes**

There are following benefits of this Postdoctoral fellowship program**:**

* The postdoctoral Fellowship can give the chance to get up-to-date on current research as well as take the time to learn several different things related to research**.**
* Candidates will have ability to develop a new or underdeveloped area of expertise, time to transition from student to professional, and the opportunity to gain an experience that may make applying for a faculty position a bit easier later on.
* One will have opportunity to become exposed to the workings of the international and multilateral policy process.
* One can devote 100% of his or her time to research and therefore are able to submit more journal articles based on his or her PhD, more grant applications, and possibly collect data to be used in future publications.
* Candidates have more flexibility than during their PhD, with none of the teaching and admin responsibilities that academics at the beginning of their research career usually have; they can travel freely to conferences and administer their own funds, working hours are almost as flexible as during their PhD.
* Research culture will be promoted through this initiative.
* Quality of research papers and journals will be published
* More creative research work will be promoted through this fully- funded fellowship
* **Eligibility criteria for fellowship program**
* Individuals must have received a doctoral degree from an accredited domestic or foreign institution.
* Candidate has not previously received a similar fellowship (not even in part).
* The upper age limit for this program is 45 year and 40 years in case of candidates belonging to Scheduled Castes/Scheduled Tribes, OBC, women and physically handicapped applicants.
* Fellowship will be provided for the Tier A Educational Institutes like IIAs, BHU IITs, XLRI, JNU and renowned foreign universities.
* **Selection procedure**

Interested and eligible candidates will be invited to complete the online-application form**.** Eligible candidate must have Income certificate which shows his or her family annual income is less than 5 lakh rupees. Candidate’s application will be screened on the basis of his or her academic performance and numbers of journal or article published nationally.

* **Tenure of fellowship**

Candidate will get fellowship for 2 years (24 months)

* **Budget**

On the basis of application of candidates, 25 best candidates will be selected and each candidate will get monthly Rs 50,000 as stipend for Postdoctoral fellowship.

25 X50,000 X 24 =Rs. 3, 00, 00,000

**10. INITIATIVES TO SCALE UP INDUSTRY ACADEMIA PARTNERSHIP**

* **Introduction:**

To create the next generation of scientists, engineers and managers, educational institutions need access to significant resources to help them deliver a rich education experience. Resources like faculty, information technology infrastructure, and training are not only hard to find but are very expensive to develop and acquire. To compound the problem, institutions today are increasingly faced with budget constraints that have limited their abilities to develop and deploy these resources. Further, universities and educational institutions have been unable to update their syllabi in tune with the high speed changes taking place in today’s world. Hence, the students churned out are not equipped to meet the current industry requirements. In response to these challenges, many companies today have intensified their academic interventions in order to tackle the impeding shortage of knowledge workers.

* **Objective:**

To scale up industry academia partnership with a view to train and encourage students for a world-class, competent, talented and an innovative workforce in today’s competitive world.

* **Initiatives:**

We propose to establish an industry institute partnership cell in every college .We would organize Workshops, conferences and symposia with joint participation of the faculty and industries.Develop two-way exchanges to build a substrate of academics who understand industry. Universities would encourage professors and students to work in industry and invite industry researchers to teach.

* **Multi-disciplinary research institute**

Partnerships that establish a multi-disciplinary research institute in which industry researchers and academics pursue solutions to complex, systems-level problems that require cross-disciplinary expertise

* **Participating expert**

Participation of experts from industry in curriculum development so that practical oriented approach is adopted in studies and arranging visits of staff members to various industries to make them aware about organization’s behavior

* **Seminars, symposium and conferences**

Organizing workshops, conferences and symposia with joint participation of the faculty and the industries and visits of industry executives and practicing engineers to the Institute for seeing research work and laboratories

* **Seed funding**

One of the weaknesses in proliferation of knowledge-based entrepreneurship in Gujarat is absence of seed and early stage funding for such ventures. Therefore venture funds for seed funds for seed funding and first stage would be set up

* **Internships/Training**

Internship for students will expose them to industrial practices. The student internships will be made more meaningful and long term so that it benefits both students and industry. This would enable the industry also to plan and structure the internship program. Practical training of students in industries and setting up R&D Laboratories sponsored by industries at the institute

* **Conducting Joint research programmes** and field studies by faculty and people from industries
* **Setting up centers for excellence**

Setting up center for excellence with involvement of industry experts right from the inception of the evaluation process, in the monitoring committee, for customizing the curricula according to recent trends in technology and also for the placement of students

* **Financial Breakup**

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Particulars** | **Amount (in Rs.)** |
| 1 | Setting up center of excellence | Rs. 2,00,00,000 |
| 2 | Internships/Training | Rs. 25,00,000 |
| 3 | Seminars/Symposiums and conferences | Rs. 25,00,000 |
| 4 | Conducting joint research programmes with industry | Rs. 50,00,000 |
| **Grand Total** | | **Rs. 3,00,00,000** |

**11**. **PROMOTION OF RESEARCH AND ENTREPRENEURIAL ACTIVITIES**

* **Objective**

The main objectives of promotion of Research and Entrepreneurial activities are:

* To stimulate, facilitate, and support the development of greater capacity to find research-based solutions of major challenges.
* **Linking higher education to Employment’s field.**
* Transfer of knowledge, methodology and practice of technology-base entrepreneurship and support for the creation of technology based businesses.
* To generate employment opportunities in Gujarat state.
* To bring radical changes in the environment through the creation of a significant new value, usually an innovation, and sometimes a new economic sector.
* **Rationale**

It is widely recognized that entrepreneurship plays a pivotal role for economic development at both national and local level and that entrepreneurs are key agents of innovation in market economies. Entrepreneurship in general and new business formation in particular is viewed as a way to ensure the creation of jobs in both the short run and over the longer term perspective.Individuals can only decide to start businesses when they recognize specific entrepreneurial opportunities in particular field.Research generates those opportunities and provides support for setting up entrepreneurial venture.

* **Outcomes**
* Creative ideas will come in lime light which will provide new opportunities for setting up business.
* Self employment will increase in the Gujarat state.
* Quality of researches will be promoted which will link knowledge with innovation and more innovative project will be established.
* It will provide opportunity to talent pool of Gujarat to show their innovative ideas.
* **Plan for promoting Research and entrepreneurial Activity**
* **Linking Higher educational Institution with the field of science and technology**:-Exposure visits to research Institutes related to science and technology, in India can broaden the scope of Research in Gujarat specifically in science field.

This step will motivate students or scholars to do research in science field so that many new inventions and discovery can benefit our society. Under this activity 20 best scholars/Students will be selected from government institutions for this kind of visit on the basis of their research paper. Duration of the visit would be 2 months.

* **Creation of physical infrastructure and support systems for business incubation**: Infrastructure for Research is very much essential for conduction quality research and creating new opportunity.Science Research Labs can support more quality of research in the field of science and technology which will provide new opportunity to students and scholars. For creating Biotechnology Lab and physical infrastructure for promoting entrepreneurial activity government colleges of Biotechnology and Pharma will be selected on the basis of their academic performance and these colleges will get Grant of Rs.50,00,000.
* **Provide funds to entrepreneurial research**: Funds are an important factor for conducting quality research. Research related to science field requires huge funds because in this kind of research chemicals and equipments are required and these researches yield new things which are beneficial for society as well as economy. Every year 10 best ideas will be selected on the state level and they will get Rs 2,00,000 for doing research.
* **State level competition for entrepreneurial project**:- Organizing state level competition for entrepreneurial project can bring a lot of innovative ideas.50 candidates will get chance to present their idea before evaluation committee and on the basis of feasibility best 5 projects can be selected and can be funded or sponsored by this scheme Each entrepreneurial project will get Rs.5,00,000 for preparing a model.
* **Conducting Idea-to-execution programs/workshops for setting up business**: The biggest problem for any entrepreneurial project is implementation strategy. There should be a proper frame so that the project can be implemented properly, so idea to execution program will teach how to frame innovative idea so that it can be implemented step by step. For this 2 days workshop will be organized .50 candidates, who have already started their business by research, will get training under this program. These candidates will be selected on the basis of their written concept regarding entrepreneurial project.
* **Budget**

|  |  |  |
| --- | --- | --- |
| **SR .No** | **Particular** | **Estimated Cost(in Rs.)** |
| A | **Linking Higher Educational Institutions with fields of science and Technology**  10 students will Visit to Research Institutes and Industries and will get Rs 5,00,000 each  (20\*Rs.5,00,000) | 1,00,00,000 |
| B | **Creation of physical infrastructure and support systems for business incubation** | 5,00,00,000 |
| C | **Provide funds to entrepreneurial research**  Funds for Research(10\*5,00,000) | 50,00,000 |
| D | **State level competition for entrepreneurial project**(5 \*10,00,000) | 50,00,000 |
| E | **Conducting Idea-to-execution programs/workshops for setting up business** | 100,00,000 |
| **TOTAL(A+B+C+D+E)** | | **8,00,00,000** |

**12. INDUSTRIAL AND ACADEMIC EXPOSURE VISIT FOR STUDENTS**

Research and innovation is one of the initiatives of KCG under which several research based exposure visit have been organized .The relevance of research in this modern era is increasing day by day. Therefore, the plan is to organize a one month research based exposure visit for top PG students from different streams (Arts, Sci, and Commerce) from 8 universities and for the research scholars.

* **Objective:**

The objective behind this exposure visit is to develop a trend of research among best students of colleges and research scholars of higher education and making them aware of career opportunities in research through effective learning. So for students and research scholars who are already doing well in their academics, this exposure visit will help them in developing their thinking and knowledge through research.

* **Strategy:**
* 200 PG students and research scholars with tremendous academic performance in their stream from eight universities will be selected for exposure visit to industries and academic institutions.
* Faculty members will be invited from reputed institutes like IIM-A, NIRMA University, IRMA, IIT-G, XLRI MICA etc. for training the students.

**Activities for faculty to accompany the students**

* Faculty members must have delivered lectures at the institutions of higher learning or must have done some community awareness program.
* These faculty members will deliver lectures on concepts related to research like characteristics, objectives of research, types of research, various research methodologies, research process ,literature review ,formulation of hypothesis, citation methods, writing research paper, book review, case review, articles etc. Their lectures will also be recorded and given to the students for future reference.
* This workshop will also include educational visits for one week where the invited faculty members will assign field projects to students based on their areas for practical exposure and for making them learn the method of conducting a research.
* **Outcome:**

These exposure visits will benefit all the students and research scholars of Government colleges as they will get an idea about research and related concepts from the grassroots level which will benefit them in the future and this also help them in knowing different career opportunities in this area.

**Duration of exposure visit:**

The duration of this exposure visit will be for 1/2 month and it will be taken by expert faculty members who will give proper training to the best students of universities/ Government colleges.

* **Cost Structure:**

|  |  |  |
| --- | --- | --- |
| **Research Scholars-(Expected research scholar=200) for ½ months** | | |
| **Particulars** | **Cost for one month(Rs) per Research Scholar** | **Total** |
| Kit per research scholar | 500 | 500\*200=1,00,000 |
| Breakfast research scholar | 150\*15=2250 | 2250\*200=4,50,000 |
| Refreshments per research scholar | 150\*15=2250 | 2250\*200=4,50,000 |
| Lunch per research scholar | 500\*15=7500 | 7500\*200=15,00,000 |
| Educational visit(practical exposure) per research scholar | 1,07,000 | 1,07,000\*200=2,14,00,000 |
| Study Material per research scholar | 30,000 | 30,000\*200=60,00,000 |
| Resource person | 1,00,000 | 1,00,000 |
| Grand Total | | Rs. 3,00,00,000 |

**13. PROGRAMME TO ATTRACT HIGH QUALITY NATIONAL FACULTY**

* **Objective**

Education Department of Gujarat proposes a programme to attract high quality national faculty to enhance the quality of teaching and research.

* **Establishment and Management of the Faculty Programs**

The funds required for the operation of the Exchange Program will be provided by the Education Department, Government of Gujarat. The programme will be managed by the respective universities. Under this programme the aim is to attract high quality national faculty with attractive compensation and research opportunities.

The details of the nature of work to attract high quality national faculty coming to Gujarat will be finalized by the respective university of Gujarat. Since the objective of the scheme is to improve quality of teaching and research in the state universities of Gujarat, the focus would be on the most outstanding and reputed national institutions.

* **Implementation of Exchange Programme**

1. At least 10-20 high quality national faculty is finalized by the university in the form of an agreement, indicating clearly the activities of the faculty and the benefits of the exchange programme to the university.

2. An agreement of the exchange programme should include among other things:

(i) Names of the faculty members selected for the exchange programme

(ii) Maximum Period of the exchange

(iii) Roles and Responsibilities of the exchanged faculty members

3. The agreement shall be submitted to the Education Department, Government of Gujarat.

4. The exchange programme shall be widely circulated by the university among all the faculty members.

5. Applications shall be invited from the candidates desiring to apply for the high quality national faculty along with the detailed CV supported by evidences.

* **Eligibility Criteria**

**The candidate selected for the exchange programme:**

* Must have a Ph.D. or an equivalent degree
* Minimum 5 years of teaching and research experience
* Must have published at least 5 research papers in peer reviewed and outstanding national and international journals and/or books published by the reputed publishers. The quality of the research paper and/or books shall be vetted and ranked by a committee of three outstanding scholars.
* Must have made a remarkable contribution in his/her field as judged by committee.
* Faculty member below the age of 45 years shall be given preference
* The faculty member with the highest API will be given priority.
* The faculties will be selected for the period of 6 months.

|  |  |
| --- | --- |
| **Cost Structure:** | |
| **National Faculty:** | |
|  | Total Cost will be Rs. 8, 00,00,000 for 40 faculties. = 20, 00,000 to each faculty. |
| *(Cost per faculty):-*  A. T.A. and D.A.: **Rs. 10,00,000**  B. Accommodation: **Rs. 5,00,000**  C. Medical Insurance: **Rs. 5,00,000** | |

**14**. **SCIENCE PARK AND INSTRUMENTATION FACILITY**

* **Introduction**

The plan is to develop a scientific industrial city spanning large acres of land that will house bioscience companies, research institutes, R&D laboratories etc. These organizations in turn will employ researchers, scientists, technicians for various fields that will encompass and embrace scientific research, engineering, forensics and environmental analysis etc. These systems are envisioned to become thriving science/ technological ecosystems catering to the entire gamut of industries. They will offer multi-varied services that will vary from individuals/institutes to research organizations needing incubation, and those that desire to scale up their products through fully integrated product manufacturing.

* **Goals and Objectives**

Science Park will beestablished in premises of Gujarat Technological University. This institution will be established with the following objectives.

* A Science Park’s main goal is to aid in development of successful firms that will enable programmes to be financially viable and freestanding.
* Providing access to laboratory space and flexible leases on operating laboratory equipment and technology support services
* Abetting development of ideas, creativity , innovation and technology transfer
* Helping in building consensus and scientific interest among research organizations by condensing the physical barriers between research institutes, educational institutes and life science companies and increasing scientific partnerships
* Undertaking research and development in the field of instrumentation and related areas relevant to industries in the State.
* Undertaking training and services for personnel from industries, R&D establishments and academic institutions.
* **Activities**

These parks will facilitate the transfer of new and hitherto unused technologies from larger life-science companies to smaller firms or institutes.

* They will bridge the gap between research institutes, educational institutes and science companies, providing access to cutting-edge, innovative, cost-effective technologies suitable for science industries (pharma, biotech, diagnostics and medical device), especially MSMEs (Micro, Small and Medium Enterprises).
* The services rendered could include the comprehensive services for investors, complete data on assistance and handling of investment incentives, property identification, health care services, data expertise and relevant instrumentations and equipment’s, biological business infrastructure development and their access to structural and technological funds.
* Shall support start-up enterprises in sciences and technology research and would consist of laboratory modules for research and development.
* The Science Park would be augmented by a sophisticated instrumentation facility and a pilot plant essentially for technology, scale up and trial production.
* The facility can be utilized by tenants on a rental basis thus saving them the investment and the set up time required.
* To be established with aim of highly sophisticated test, measurement, calibration, analysis and research laboratories in the areas of instrumentation, quality evaluation / calibration, chemical analysis and testing.
* A good number of industries, academic institutions and research establishments make use of the services of Science Park.
* In addition to regular calibration, testing and analysis activities, the scientific personnel in Science Park are involved in research and development in instrumentation and allied areas.
* Calibration laboratories (Electro-Technical, Thermal, Mechanical)
* Testing laboratories (Electrical, Plastics, Mechanical)
* Sophisticated Analytical Instrument Facility (SAIF), supported by DST housing  with analytical instruments
* Instrumentation R & D Laboratory.
* **Characteristics of a Science Park**

Science Park will differ from classical clusters by the fact that they have a stronger science/research base and by their ability to generate a greater frequency of innovative enterprises which are able to commercialize and exploit research. In a Science Park, higher education institutions and research centers play a key role.

A strong science base: Science Park has to rely on quality research infrastructure and laboratories as well as on high level talents and skills. Public and private funding must be available to ensure optimal use of the infrastructure and to motivate or attract talents and skills. In order to be attractive for enterprises, Science Park has to find ways to balance basic and applied research activities.

An above average entrepreneurial culture: Science Park must help regions or countries to create growth and jobs. This can only be achieved if researchers and people have a strong entrepreneurial and innovation culture. That type of culture needs to find a favorable environment, good framework conditions and a strong public sector support for all types of entrepreneurial activities.

A capacity to generate fast growing start-ups (gazelles), spin outs/spin offs and to increase the RDTI absorption capacity of SMEs. Science Park is able to generate high growth / fast growing enterprises. Some of them can be considered as spin offs / spin outs of universities, some others from existing enterprises.

Attractive to talented people and students: New ideas often flourish in dynamic environments which attract and reward talent. Students are more and more interested in learning and developing their skills in the neighborhood of talent. This form a virtuous cycle: talent develops new ideas which create an attractive environment to students who contribute to generate new ideas.

A skilled workforce: To help transform research results into new products and services, Science Park need skilled workforce at each stage of the process, i.e. laboratory tests, prototype, production, etc.

Availability of finance, especially seed and venture capital: No successful Science Park can be developed without a strong financial value chain. This chain needs to be composed of research funding mechanisms, repayable advanced tools to help the development of new ideas, proof of concept schemes, active business angels, seed capital funds, venture capitalists as well as banks and guarantee providers. Moreover, RICs have to help entrepreneurs improve their business plan proposal and avoid any misunderstanding due to asymmetric information and perception between them and investors. This can be done through business angel networks, investment readiness schemes and venture capital summits.

Availability of value added business support services: On top of the classical support services to enterprises such as information on how to create a new business, to write a business plan, how to incorporate it or to get production permits, Science Park have to provide added value support services such as testing facilities, incubation spaces, mentoring, world economic intelligence, IPR protection advice and, as mentioned above, access to a wide range of funding tools.

A good location for research centres of large corporations: Science Park are often attractive to the research centres of multinational enterprises because they are able to combine the science based environment with a good quality of life and good transport infrastructures. Science parks are often an asset to attract such enterprises.

Effective formal and informal networks: This is of course the essence of any clusters. As already mentioned, Science Park's specificity is to allow a lot of interactions and cross-fertilisation of ideas between the players of the triple helix concept, i.e. the public sector, the private sector and the knowledge centres or intermediary organisations. Those networks often create a strong Science Park identity among the stakeholders.

Provision of international co-operation framework: In today's economy, knowledge and market are global. To help all the stakeholders remain competitive, Science Parks have to be part of or to build transnational networks.

* **Financial Structure:**

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Particulars** | **Amount (in Rs.)** |
| 1 | Land and Building | 2,50,00,000 |
| 2 | Laboratory and Equipment | 2,50,00,000 |
| **Grand Total** | | **5,00,00,000** |

**15. FULLY–FUNDED DOCTORAL FELLOWSHIP**

* **Objective**

The main objectives of fully-funded doctoral fellowship are;

* To prepare scholars for careers demanding advanced research and analytical capabilities.
* It will provide opportunities to young scholars, who are not getting any kind of stipend/fellowship/scholarship from any other organization/programs/government schemes/state or central university, to pursue full-time research leading to a Ph.D. degree.
* The fellowships aim to train prospective scholars to become highly skilled and innovative researcher
* **Rationale**

Research and experimental development comprises creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man , culture and society, and the use of  this stock of knowledge to devise new applications.So many fellowship programs are available in India but everyone is not capable to crack these kind of entrance exams. Only few aspirants get benefit of this kind of fellowship or scholarship for Ph.D .For promoting research culture in Gujarat if we have this kind of program for those scholars who are not getting any kind of fellowship or stipend from any other organization, then it would be a milestone for creating research culture in the Gujarat state.

* **Outcomes**

There are following benefits of this fully funded fellowship program**:**

* It will increase the number of Ph.D degree holders in Gujarat
* Research culture will be promoted through this initiative.
* Quality of research papers and journals will be published
* Economical constraint will not be obstacle in pursuing Ph.D degree from state conventional university.
* More creative research work will be promoted through this fully- funded fellowship
* **Eligibility criteria for fellowship program**
* Candidate must have Post graduation from any recognized university and must have secured 75% and above in PG program and opting Ph.D degree from state conventional university and Recognized research Institutes where fellowship or stipend is not given for pursuing Doctoral degree.
* The upper age limit for fully funded fellowships shall be 33 years which is relaxable up to 5 years in case of candidates belonging to Scheduled Castes/Scheduled Tribes, OBC, women and physically handicapped applicants.
* All those eligible for direct CSIR SRF/ JRF, any other kind of Governmental scholarship or stipend are not eligible to apply for this fellowship.
* Fellowship will be provided for government educational institutions not for private institutes.
* **Selection procedure**

Eligible candidate will have to fill an application form along with necessary documents which will be available on[**www.kcggujaratgov.in**](http://www.kcggujaratgov.in) **.** Eligible candidate must have Income certificate which shows his or her family annual income is less than 4 lakh rupees. Candidate’s application will be screened on the basis of marks and participation in extra curriculum activity.

* **Tenure of fellowship**

Candidate will get fellowship for 3 years *i.e. 36 months*.

* **Budget**

On the basis of application of candidates, 50 best candidates will be selected and each candidate will get monthly Rs. 14,000/- as stipend for research work.

* **Cost structure:**

1. 50 *faculties* **X** Rs.14000 *(per month)* **X** 36*(months)* = Rs. 2, 52, 00, 000

2. Contingency Funds: Rs. 8, 00, 000

***Now the total cost here will be Rs. 2,60,00,000***

**16. UPGRADING LIBRARY AND LABORATORY FACILITIES**

With the advent of information, knowledge and technology making information accessible to the masses has become a necessity. Which is why, we need such a resource centre (library) with CDs, journals, books and magazines and laboratories with well- equipped and modern apparatus in government colleges and universities which can make available high quality materials for students, provide students with theoretical as well as practical knowledge with the help of laboratory learning which will help them in learning scientific concepts & scientific methods both theoretically and practically that will result in better understanding of the nature of science.

* **Objective**

Therefore the objective behind this proposal is to strengthen the libraries of 8 government universities (Arts, Commerce, Law and B.Ed) and to improve the effectiveness of science laboratories of 15 government colleges of Gujarat.

* **Scope of Interventions and Beneficiaries**

This initiative will help in the betterment of labs in the government science colleges which will act as a supporting tool in the learning of students. By setting up of libraries in universities it will be easy for the students to access books, CDs, journals and magazines and it will also benefit the teachers as then they will be able to refer the books for research purpose.

* **Outcome**

Modern libraries and well equipped laboratories will give students better learning opportunities and will develop their concepts of science in a better way. With a wide range of books, journals and other resources they can gain knowledge not only about local communities but at the same time they will get an idea of what is going around in the present world. This idea will also act as a supportive input for teachers as they will be able to teach effectively and they can also use books of libraries for their own research purpose for reference. They can get access to advance resources in order to enhance their knowledge with a view to design, implement, and assess curriculum and instruction to meet academic standards.

**Note:** The above given funds are to be used only to make laboratories highly effective and shall not include purchase of:

* Furniture and fixtures
* Any apparatus or equipment
* **Cost structure:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Library** | **Amount (in Rs.)** | |
| 1. | Rs. 50,00,000 each to 8 universities | Rs. 4,00,00,000 | |
| **Total** | | | Rs. 4,00,00,000 |
| **S. No.** | **Laboratory** | **Amount (in Rs.)** | |
| 2. | Rs. 5000000 each to 8 universities | Rs. 4,00,00,000 | |
| **Total** | | Rs. 4,00,00,000 | |
| **Grand total (Library + Science Laboratories)** | | **Rs. 8,00,00,000** | |

17. IDENTIFYING DEPARTMENTS OF CRITICAL IMPORTANCE AND MOVING THEM INTO A POSITION OF WORLD LEADERSHIP

* **Objective**

Higher Education leads to expansion of knowledge, opportunities and employment. Quality Education not only secures the future of the nation but also adds immense strength to the future of Society. Any investment, for the future of our youth is a firm step towards nation building. Expansion of Knowledge and Research, have led to inventions which have transformed the world beyond imagination. India lacks in the overall research output at a global level and therefore potential departments needs to be identified on defined criteria and be given an opportunity to place them at a world leadership position.

* **Beneficiaries**

This initiative will be beneficial for researchers, academicians and students who want to pursue and explore further in the field of research in future and ultimately contribute to the society.

* **Outcome**

Through this initiative, the allocated funds to each field/department will encourage them to develop their infrastructure and facilitate more resources to beneficiaries which will encourage them to adopt such fields and make them aware about their future prospects.

* **Selection criteria**

The departments will be selected on the basis of best performance in terms of the depth of the research projects, faculties, achievements and awards in the field of research, number of patents registered and its overall performance .List of the departments which needs funding and has the potential to be at the apex level of the world leadership are as follows:

* Nano technology
* Ocean science and technology Life science
* Marine science
* Bio science
* Chemical Engineering
* Bio informatics
* Biotechnology
* Microbiology and biotechnology
* Zoology and biomedical technology
* Pharmacy
* Forensic Science
* **Funding**

A total of Rs. 5 crore will be given under this initiative and ten departments will be given Rs. 1,00,00,000 each based on the overall performances of the university.

The breakup structure is as follows:

|  |  |
| --- | --- |
| **Particulars** | **Amount (in Rs.)** |
| Science Laboratories | 70,00,000 |
| Equipment | 20,00,000 |
| Other research purpose materials | 10,00,000 |
| **Total** | 1,00,00,000 |
| **Grand total** (1,00,00,000\* 10 departments) | **10,00,00,000** |