

## SCIENCE &amp; TECHNOLOGY DEPARTMENT

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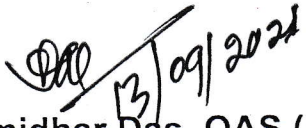
No. ST-BT-GIA-0003-2021 3575 /ST, Dt. 13.9.2021

Applications are invited through proper channel from the different Universities and Research institutions of the State of Odisha to set-up Centre of Excellence for advanced research and mentoring in various sectors of Biotechnology and healthcare using cutting edge interdisciplinary technologies. Such advanced research should have the potential for a clear path on product development for incubation/commercialization.

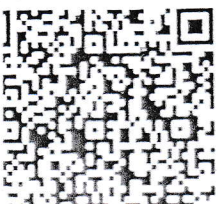
All applications should be reached in the name of the Director, Science & Technology, Science & Technology Department, Government of Odisha, Kharavel Bhawan, Bhubaneswar by registered post on or before 10.10.2021.

Applications received beyond the due date, shall not be considered.

For details advertisement, eligibility and mode of application and guidelines log on to <http://www.odisha.gov.in/sciencetechnology>

  
Laxmidhar Das, OAS (SS)

Special Secretary to Government



# The Odisha Gazette

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[No.1657—ST-BT-MISC-0010/2020/ST.]

**SCIENCE & TECHNOLOGY DEPARTMENT**

RESOLUTION

The 22nd March, 2021

**Sub:—Guidelines for Establishment of Centre of Excellence in Biotechnology (CoEB).**

The question of framing up the said guidelines to encourage the Universities and Research institutions in the State to set-up Centre of Excellence for advanced research and mentoring in various sectors of Biotechnology and healthcare using cutting edge interdisciplinary technologies. Such advanced research should have the potential for a clear path on product development for incubation/commercialization.

After careful consideration, the Government in Science & Technology Department have been pleased to formulate guidelines for Establishment of Centre of Excellence in Biotechnology (CoEB) for proper implementation of Odisha Biotechnology Policy, 2018 which is as follows :—

**1. Introduction:**

The Government of Odisha has decided to encourage the Universities and Research institutions in the State to set-up Centre of Excellence for advanced research and mentoring in various sectors of Biotechnology and healthcare using cutting edge interdisciplinary technologies. Such advanced research should have the potential for a clear path on product development for incubation/commercialization.

To harness the resources available in the state and convert them into novel products / process for the benefit of society through research and development, the State Govt. proposes to provide financial assistance to selected Universities and research organizations in the state to strive for excellence in their chosen areas of research & development in Biotechnology. It will also help to improve the competitiveness of the efforts and promote the transfer of innovations into the social and economic environment.

## **2. The Scheme:**

The scheme will be known as Centre of Excellence in Biotechnology (CoEB).

## **3. Salient Features of a Center of Excellence:**

- 3.1 The Centre of Excellence in Biotechnology (CoEB) is expected to be a collaborative activity between a team of high quality researchers in the institution and researchers or research-users in several companies or organizations. In case where the nature of research is related to production or improvement of public goods, collaboration may include appropriate public agencies.
- 3.2 The Centre should focus on new and emerging technologies, multi-disciplinary and translational research relevant to national development goals.
- 3.3 Priority will be accorded to thematic areas such as health, food, agriculture, energy, water, clean environment, smart materials that promote sustainable development.
- 3.4 Funding can be considered for new as well as existing centre of excellence for training and research, for value addition or achieving advanced levels of research.
- 3.5 The Centre is expected to trigger an R&D culture in the institution as evidenced by significant increase in applications of research outputs, collaborative and sponsored research, publications in reputed national/international journals and conferences, patents, innovations, commercialized products and Masters and PhD enrolments. The Centre is expected to be the final 'go to' point for State and possibly Central Government, in the domain identified for recognizing it as the center of excellence.

## **4. Aim & Objectives:**

- 4.1 Aim is to build few but quality centres having expertise in doing good science, technology development and incubation activities. CoEB should be HUBs of DST, Odisha to promote, implement and track the programs under the policy. CoEBs would get priority in the areas of BInG partner, Immersion fellowship, Bio-incubator.
- 4.2 It is to promote science activities and also innovation-incubation activities.
- 4.3 Its mandate should focus on advance research with clear path on product development for incubation/commercialization.

- 4.4 CoEB should receive grant upto 2cr in total for 2 years and may be extendable for another 1 year based on need and mutually identified goals.
- 4.5 The eligible CoEB will get funding support in two installments. The last installment will be sanctioned after submission of Utilization Certificate against the amount sanctioned in 1st installment.

#### **5. Nature of Project Support:**

- 5.1 For promotion of research & development activities in the emerging areas of Biotechnology this scheme will be financially assisting Universities /R & D Institutions/Departments for setting up Centre of Excellence. Proposal should focus on any one subject/ domain of the identified thematic areas and Institute/ Department may take up R&D and translational research (including product and process development) in that proposed area while considering recognition of an institution as CoE, the specialization in the domain applied for, availability of good quality faculty in that domain, track record of proven research and publication in that domain and number of patents available in a particular domain will be taken into consideration.
- 5.2 The Scheme will provide the support to acquire research facilities, research man- power cost, acquiring research consumables, funds for travel, organizing workshops and conferences, contingencies and maintenance of the facilities. In some cases, equipment essential for carrying out advanced research could also be considered, though preference will be given to Institutions already possessing the required equipment. Universities are encouraged to harness their areas of excellence into an inter-disciplinary thematic effort of an accomplished team, with clearly articulated objectives. Proposals towards individual R&D support would not be accepted under this Scheme. The synergy and focus of research may preferably be aligned to National Missions/ priorities.

***(Outline of the project proposal and application formats are placed at Annexure – I & II respectively)***

#### **6. Priority Thematic Areas:**

- 6.1 DST, Government of Odisha would be inviting CoEB proposals in the following priority thematic areas
- (i) Marine/Aquaculture Biotechnology
  - (ii) Food Biotech
  - (iii) Agriculture Biotech

- (iv) Disease biology & diagnostics
- (v) Biomedical device
- (vi) Computational biology including Genomics/proteomics/ big data analytics
- (vii) Industrial Biotechnology
- (viii) Bioenergy
- (ix) Microbial Biotechnology
- (x) Environmental Biotechnology

**N.B.-***However emerging areas for establishment of CoEB will be identified by Govt. of Odisha from time to time and applications will be invited from Institutions as and when it is required to promote such areas through open advertisements.*

## **7. Eligible Institutions & Quantum of Assistance:**

- 7.1 Financial assistance of up to 200.00 lakh for specialized research in the identified domain will be provided to R&D Institutions/Departments/ Academic Institutions and will be in the form of grant over a period of **two years, extendable by another 1 year** depending upon the actual proposal, strength of institutions, availability of funds and possibility of alternate source of funding.
- 7.2 The quantum of support and minimum eligibility conditions is organized into three categories as given below. The broad objective in each case is to support potentially high impact, interdisciplinary research (both basic and applied) aligned to national priorities and missions. The research should also align well with goals of Self-Reliant India (AtmaNirbhar Bharat) and Start-up India etc. Wherever possible, the proposed research should also be geared towards increased national competencies in fields like manufacturing, healthcare, waste processing, clean energy and water and other similar national priorities.
- 7.3 For screening proposals, minimum essential requirements like NIRF, h-Index and I<sub>10</sub> index of the University/Institute shall be considered. The proposals will be evaluated by considering the number and quality of research papers, patents and research projects and overall research merit.

## **8. Selection:**

The proposals will be evaluated on the basis of the following criteria:

The proposal received will be evaluated by **The Advisory cum Steering Committee**: Parameters of Excellence e.g. factor with I<sub>10</sub> index will be considered along with the score of NIRF ranking and the number of patents to select the

University/institution. The Proposal will be selected based on the relevance of thrust areas of Research, requirement of facilities, expertise available etc. The selection process will be through a peer review mechanism and visit of the Universities/institutions, if necessary. Advisory Committee of Experts will assist DST in making the final selection.

### **8.1 Selection Procedure**

(i) Recommendation by **the Advisory Committee.**

(ii) **The Advisory Committee:** The Committee would make assessment of the applications received and recommend the Department for consideration. It would also carry out midterm evaluation of progress.

The composition of the **Advisory Committee** will be as follows:

1. Secretary, Science & Technology Dept.- Chairman
2. Director (Tech ), Biotechnology, S&T Dept. - Member
3. Subject expert from a National Laboratory- Member
4. Subject Expert from Academics- Member
5. Scientist of repute in Biotechnology- Member
6. Representative of Biotechnology industry- Member
7. Deputy Director (Tech.), Biotechnology, S &T Dept. - Member Convener

(iii) Approval by DST, Govt. of Odisha.

(iii) The institutional Advisory committee will be constituted by the institute to oversee the Activities of CoEB. The composition of the Advisory Committee will be as follows:

1. Head of the institution- Chairman
2. Representative of S&T Department- Member
3. Outside Subject Expert (2) \*Member
4. Finance officer of the institute- Member
5. Coordinator of the center- Member convener

(\* To be nominated by S&T Department, Odisha(1), To be nominated by host institute(1)

### **9. Criteria for review:**

- 9.1 Overall proposal implementation feasibility in terms of choice of area and its relevance to the national development goals.
- 9.2 Institutional preparedness and collaboration.
- 9.3 Reasonability of proposed budget.
- 9.4 Multidisciplinary.
- 9.5 Technological development and translation into prototypes /patents/

publications.

9.6 Scaling-up PhD and Masters Enrolment in the identified areas.

9.7 Ensuring sustenance of Centers after the end of the project.

9.8 Mentoring and handholding of other Academic Institutions/ R&D Institutions in the identified area of CoE.

**10. The following activities are envisaged under the center:**

10.1. Improvement in research and development facilities:

(i) Procurement of Goods [equipment & software] and minor infrastructure for improvement in research and development facilities.

(ii) Procurement of chemicals & Consumables

(iii) Project Staff: A significant part of these could also be required for MS/ PhD program.

(iv) Part-time consultants.

(v) Testing and Prototype development.

(vi) Data collection, dissemination and documentation,

10.2. Coordinated work with other research institutes in India/abroad (Developing collaboration with reputed national and international institutions working on similar areas)

10.3. Capacity development (Training and capacity building of students and faculties in the thematic area)

10.4. Seminars, conferences workshops, and IEC (information, education and communication).

10.5. Publication in peer reviewed high-quality national & international journals

10.6. Filing patents, Technology Development and Transfer, Developing linkages with society.

**11. Withdrawal of COEB status:**

11.1. If as a result of the periodic reviews conducted, it is found that the institution is not performing well, a six-month notice will be given to it for improvement. After six months, if the S&T Department is satisfied (either by visiting the institute or otherwise) that the institute has not made much progress or has not shown results as per the action plan and research programme approved, the status and privileges attached to the institute under the CoEB scheme may be withdrawn by the Department. The CoEB status can also be revoked, if information and data supplied by the institution is found to be incorrect or in case of misappropriation and misuse of funds. In such a

case, either the institution may be asked to refund the financial assistance given to it under the scheme along with the interest, or no further grant will be sanctioned in favor of the institution or both. The decision of the S&T Department will be final and binding in such cases.

11.2. The fund allocation and expenditure under the scheme will be reviewed by the State Level implementation Committee (SLIC).

By Order of the Governor  
SANTOSH KUMAR SARANGI  
Principal Secretary to Government



## Outline for Project Proposal

1. **Background of the area including**
  - a. Status of technology at the world level.
  - b. Status of technology in India.
  - c. Indian Industry interest/ participation in the areas.
2. **Research team** background short summary of researcher in institute and possible collaborates from industry and other academic institutions.
3. **Center's activities and how these activities:**
  - a. Could make Odisha a leader in the area.
  - b. Could make social impact.
4. **Yearly budget** for staff, equipment, consumables, Travel and contingency.

### **N.B. Selection Process**

- (i) Short-listing by experts and, if required,
- (ii) Presentation before the Advisory cum Steering Committee chaired by Secretary (S&T), Govt of Odisha to approve the proposal.

## Application Format

### A. General

1. Name of the Institution/ Location :

- Name
- Address for correspondence including Telephone, FAX, email etc.
- Name of the Vice-Chancellor with Address and Mobile No

2. Type of Institution/ Year of establishment: Central Government Institutions/ State Government Institution/Govt. aided institutions/Private unaided (UGC/AICTE approved).

3. Recognition of excellence: Award, Publication, Patent, Citation, National International partnership with institution of excellence in or related to the research area proposed.

*(Overall University Ranking in NIRF (2020) as per MHRD (Attach supporting documents) Index of the University (as per Web of Science) and I<sub>10</sub>Index (as per Google Scholar for whole University with bifurcation of top 25 faculty members only for science, technology, engineering and mathematics a (STEM) Area)*

4. Total Students:

UG:

PG:

Research/research projects/Ph.D. students:

5. Department-wise Research Output during last 5 years

Name of Department/ Centre	Research Output in terms of		Name of Important Journals & their Impact Factor
	No. of Publications in SCI Journals only	No of Patents	

6. Total Faculty/Scientists:

- Sanctioned Strength:
- Filled:
- % of Faculty having Ph.D. in Science and Technology / Engineering:

Distinction earned by faculties/Scientists like National and International Awards, Recognitions, Fellowship of Science Academies (FNA, FASc, FNAE, FNASc, FNASS, FNAMS, FIEEE, FTWAS), J C Bose Fellowship and SS Bhatnagar Award.

7. Annual Budget/Expenditure:

8. Any other

## **B. Proposal parameters & Institutional Capacity**

1. Name of the center to be established
2. Thematic Area of the proposed center(Aim, Objectives and Origin)  
Identified 2-3 research strengths areas of the University with Proven Track Record. (Please mention research programs aligned with the National Mission Work Plan.

Methodology: (*Maximum of 3pages*)

*(It should contain all the details of how each of the objectives will be addressed. This section must be detailed and have clear plans, not vague and generalized statements. The strength of the University for the Proposed Work should be brought out clearly by projecting related work done so far. It should include relevant details i.e., tables, figures, equations etc together with justification of why the project research plan might succeed.*

Time Schedule of activities giving milestones through BAR diagram with time interval of three months (Maximum 1page).

Suggested Plan of action for utilization of research outcome expected from the project. (*Maximum ½page*)

Environmental impact assessment and risk analysis (*Maximum ½ pages*)

### **3. Total Project Estimate:**

Proposed fund from present scheme:

Gap funding:

### **4. National Development Goal**

In the Existing COEB addressed?

In the Proposed COEB, how will be addressed?

### **5. Sustainable Development**

Existing COEB: How does it promote?

Proposed COEB: How will it promote?

6. Quality of faculty in terms of credentials and achievements to be associated with the centre.
7. No of MS /Ph.D. likely to work in the proposed centre.
8. Basic Infrastructure: Buildings, Labs, Equipments etc.
9. National/ International collaboration for the proposed centre (funding), (if any)
  - Available:
  - Proposed:

**10. Collaboration & Partnerships**

Existing COEB:

Proposed COEB:

**11. Contacts:**

COEB Coordinator,

Address /mail ID/mobile/ tel. no./fax No.

**12. Details of funds requested under Scheme( Rs in Lakhs)****Non-Recurring items (Capital)**

i) Name of the Research Facility

1.

2.

3.

**Recurring Items (General)**

i) Manpower Cost- (JRF, SRF and RA etc)

ii) Consumables

iii) Seminar/Workshop/Conferences

iv) Travel

v) Maintenance of Facilities

vi) SSR Activities

viii) Others (Contingencies/Student Fellowships/ Research related Expenditure)

Seed Grant: Small seed grant to researchers to venture into new directions within the specified Theme.

C.Thematic Proposal	Activity	Project Life Estimates	Financial	Financial	Financial
			Year 1	Year II	Year III
13. Review of status of Research and Development in the subject	a.				
	b.				
	c.				
	d.				
	e.				
	<b>Operation &amp; Maintenance etc</b>				
14.	<b>Total</b>				

International Status : ( Maximum 2pages)

*(Researchers working in the area worldwide and their contributions must be properly highlighted with recent references and reviews. A correct and up-to-date description of the international research status must be attempted)*

*Theme wise*

15. National Status: *(Maximum 1page)(Same as above to cover the contribution of Indian Scientists in the project area)*

*Theme wise*

16. Importance of the proposed activity in the context of current status *(Maximum 1page)*

**(Highlight what is the new area or advances that is targeted in the CoEB in relating to what is already known. This is a very important section, the novelty component and its importance should be clearly projected)**

17. Plan for the Thematic Program in COEB with other programs of DST such as Startups scheme and International Cooperation i.e. International Collaborative activity with any Country.

18. Plans for implementing the Social Scientific Responsibility (SSR).

19. Department-wise Sponsored R&D Projects during last 5years

Name of the Department/ Centre	No. Sponsored R&D Projects	Amount (Rs. in lakh) & Duration	Name of Sponsored Agency

20. Details of Projects submitted to various funding agencies in last two years

21.

Sl. No.	Title	Cost in Lakhs	Month of submission	Agency	Status

21. Details of (year, sanctioned Costs) other major funding of more than Rs. 10 Cores in the last 5 years.

22. Give a list of Equipment, which are available and functional in the University each costing Rs.25 Lakh and above.

Department	Name of Equipment	Year of Purchase	Status

23. Details of facilities in Central Instrumentation Centres if any
24. Trend and practices of the University to interact with various industries to sensitize and foster the overall growth and usage of available facilities by different Industries, MSME, Start-ups, Incubators etc.
25. Availability of suitable infrastructure, such as uninterrupted supply of utility like electricity, water, sanitation, internet connection etc and Availability of guest house to host visiting national users to utilize the facilities, if any
26. List of equipment to be procured under Support with approximate cost. (No quotation of any equipment to be attached).
27. Expertise available with the University in executing the project (Maximum 1page)
28. Societal paybacks envisaged at the end of the project, if supported.
29. Details of each Budget Heads with full justifications for each item

All the Information submitted as above is true and is correct.

Signature of the Coordinator

Signature of the Head of the Institution

(minimum 5 years of service

In the institution)

**Note: *Building, Civil construction and related activities will not be covered under this support.***