

**ODISHA STATE HIGHER EDUCATION COUNCIL**  
**2<sup>nd</sup> Floor, Pustak Bhawan, A-11, Suka Vihar, Bhubaneswar-751022**

**Email-oshec.hed@gmail.com**

Letter No. 734/97/OSHEC

Date: 16/03/2024

From,

Smt. Prativa Sahu. OAS (S)  
Member Secretary, OSHEC

To

**The Registrar,**  
Sambalpur University, Sambalpur/  
Berhampur University, Berhampur/  
F.M. University, Balasore/  
Utkal University, Bhubaneswar/  
R.D.W University, Bhubaneswar

Sub: Transfer of funds for RCOE under <sup>MRIP</sup> for the year 2023-2024.

Madam/Sir,

I am directed to intimate that on the recommendation for "Sustainability Grant" under MRIP for the year 2023-2024 & 2024-2025 submitted basing upon the interactive sessions-cum-evaluation of activities and annual funding support submitted by RCOEs at state universities funded under OHEPEE of World Bank and RUSA 2.0, Government have been pleased to approve sustainability grants for Research Centres of Excellence under MRIP for the year 2023-2024 and 2024-2025(copy enclosed) as detailed below.

Sl. No.	Name of the RCOE	University & Funding Agency	Approved Sustainability Grant for RCOE (in Lakhs)	
			2023-2024	2024-2025
01	Natural Products and Therapeutics	Sambalpur University OHEPEE	35.00	35.00
02	Regional Development and Tribal Studies	Sambalpur University OHEPEE	2.50	21.80
03	Centre for Nano Science and Technology for Development of sensors	Berhampur University OHEPEE	10.50	35.00
04	Centre for Bio-prospecting of Ethno-pharmaceuticals in Southern Odisha	Berhampur University OHEPEE	2.50	35.00

05	Centre for Bio-Resource Management and Energy Conservation Material Development	F.M. University <b>OHEPEE</b>	2.50	26.60
06	Centre for Studies on Tribal and Marginalized Communities	Utkal University <b>OHEPEE</b>	NIL	20.88
07	Integrated Omics and Computational Biology	Utkal University <b>OHEPEE</b>	1.50	31.00
08	Centre for Environment, Climate change & Public Health	Utkal University <b>RUSA 2.0</b>	1.50	18.50
09	Centre for Advanced Materials and Application	Utkal University <b>RUSA 2.0</b>	2.50	21.50
10	Centre for High Energy and Condensed matter physics	Utkal University <b>RUSA 2.0</b>	1.50	30.00
11	Centre for Translation and Life Writing	R. D. W. University <b>OHEPEE</b>	1.50	1.50
		<b>TOTAL</b>	<b>61.50</b>	<b>276.78</b>

Accordingly, fund approved for the year 2023-2024 i.e. Rs.61,50,000/- in favour of 10 RCOE has been transferred to the bank accounts of your universities This transfer has been made through SBI, Secretariat Branch, Bhubaneswar to your account as per details given in **Annexure-A.**

It is requested that amount meant for the RCOE at the university may be released to the respective RCOE at the earliest to meet their requirements.

Yours faithfully,

  
Member Secretary, OSHEC



Annexure-A

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**ODISHA STATE HIGHER EDUCATION COUNCIL**  
**2<sup>nd</sup> Floor, Pustak Bhawan, A-11, Suka Vihar, Bhubaneswar-751022**  
**Email-oshec.hed@gmail.com**

Letter No. 723 /97/OSHECDate: 14/03/2024

From,

Smt. Prativa Sahu. OAS (S)  
 Member Secretary, OSHEC

To

The Branch Manager,  
 State Bank of India,  
 Secretariat Branch,  
 Bhubaneswar-751001

Sub: Transfer of funds to the accounts of the beneficiaries.

Madam/Sir,

I am to request you for transfer of funds of Rs.61,50,000/-(Rupees Sixty One lakh Fifty thousand) only from the OSHEC A/c No.35422966918 to the accounts of the educational institutions as detailed below under intimation to this office.

Yours faithfully,

*Sahu*  
14/3/24  
**Member Secretary, OSHEC**  
**Member Secretary**  
**Odisha State Higher Education Council**  
**Govt. of Odisha**

Sl. No.	Name of the Beneficiaries	Name of the Bank	Account Number	IFSC Code	Amount
01	Comptroller of Finance, Sambalpur University.	State Bank of India	31160735339	SBIN0006672	37,50,000/-
02	Research and Consultancy Project Berhampur	Canara Bank	110014561501	CNRB0006371	13,00,000/-
03	F M University General Fund-II	UCO Bank	12910110018514	UCBA0002415	2,50,000/-
04	UU General Fund No 2, Comptroller of Finance	State Bank of India	10164205112	SBIN0002135	7,00,000/-
05	Comptroller of Finance, Ramadevi Womens' University	State Bank of India	35029789537	SBIN0007891	1,50,000/-
<b>TOTAL</b>					<b>61,50,000/-</b>

*And*  
14/03/24  
**Finance Officer, OSHEC**

**Finance Officer**  
**Odisha State Higher Education**  
**Council, Bhubaneswar**



## Extracts

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### From

the Proceedings of the interactive sessions-cum-evaluation of activities and annual funding support submitted by Research Centers of Excellence (RCOE) at state universities funded under OHEPEE of World Bank and RUSA 2.0 and recommending "Sustainability Grant" under MRIP for the year 2023-24 & 2024-25 on 5<sup>th</sup> and 6<sup>th</sup> January 2024 in the presence of panel of experts in the Conference Hall of Text Book Bureau under the chairmanship of Vice Chairperson, OSHEC, Prof. Asoka K. Das

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The recommendations with respect to each RCOE (including the budgetary recommendations under MRIP) are given below:-

#### 1. Name of the OHEPEE funded RCOE: Natural Products and Therapeutics (Est. 2019)

##### Sambalpur University

- **Departments involved:** Biotechnology & Bioinformatics Dept. and School of Chemistry

##### Proposed Plan:

1. Processing of the raw materials from the medicinal plants and preparation of their aqueous and hydro-alcoholic extracts.
2. Designing and optimization of effective formulations using crude extracts, partially purified extract and powdered plant parts either individually or in combination.
3. Preclinical evaluation of the developed formulations to understand its therapeutic efficacy using *in vitro* (biochemical and cellular assay) and *in vivo* animal models.
4. Imparting National Internship Training and workshops to the graduate and postgraduate students of colleges and universities, faculties, research scholars as well as conducting their dissertation works.
5. Publishing research papers and filing of patents (process patents, formulation patents, etc.)

##### Recommendations:

*The RCOE has performed excellently and is proceeding towards development of commercial products. It would also do well to explore the possibility of NABL accreditation for its laboratories. For the incubation activity leading to commercial products, the RCOE may need to formulate a separate proposal.*

##### Recommended Budget for 2023-24 (Released now)

Items	Recommended Budget for 2023-24 in Rs
<b>Non-Recurring Grant:</b>	
Equipment (New instruments to be procured to carry out research work in the proposed plan of works)	24,00,000/-
<b>Sub-Total</b>	<b>24,00,000/-</b>
<b>Recurring Grant:</b>	



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Chemicals and .Glass wares/ plastic wares including animal feeds, outsourcing and maintenance of instruments	4,00,000/-
Internship to 140 Graduate and Post-Graduate Students of HEIs/Research Scholars in 07 different modules/ Training to faculties etc. of 1 month duration	7,00,000/-
<b>Sub-Total</b>	<b>11,00,000/-</b>
<b>TOTAL</b>	<b>35,00,000/-</b>

**Recommended Budget for 2024-25 (will be released during financial year 2024-25)**

Items	Recommended Budget for 2024-25 in Rs
<b>Non-Recurring</b>	
Post-Doctoral Fellow/Research Associate: 2 nos @ 50,000/- per month	12,00,000/-
Animal Keeper and Care taker ( for 11 months on outsourcing basis) @ 10,000/- per month	1,10,000/-
Technical Assistants: 3 nos @20,000/-per month	7,20,000/-
<b>Sub-Total</b>	<b>20,30,000/-</b>
<b>Recurring Grant:</b>	
Chemicals, Glass wares, Plastic wares, animal feeds, outsourcing costs, maintenance of equipment, etc	4,70,000/-
Internship to 140 Graduate and Post-Graduate Students of HEIs/Research Scholars in 07 different modules/ Training to faculties etc. of 01 month duration	7,00,000/-
Contingency grants including training to faculties	1,00,000/-
Travel travel expenses for collection of plant materials, etc	1,00,000/-
Publication of books	1,00,000/-
<b>Sub-Total</b>	<b>14,70,000/-</b>
<b>TOTAL</b>	<b>35,00,000/-</b>

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**2. Name of the OHEPEE funded RCOE: Regional Development and Tribal Studies (Estt.: 2018), Sambalpur University**

**Departments involved:** Department of Anthropology, Department of Statistics and Department of Food Science and Nutrition.

**Proposed Plan:**

Recently, the Expert Committee on Tribal Health, Ministry of Tribal Affairs has given recommendations with the goal of bridging the current gap in health status of tribal people by the year 2027. In order to ameliorate the health status in tribe specific areas, especially among the PVTGs of Odisha, it is essential to focus on health promotion and disease prevention. Hence, the Centre of Excellence will have the following objectives:

1. Documentation of socio-economic and cultural indicators, health, nutrition and morbidity indicators to construct the vulnerability index of Tribes and Particularly Vulnerable Tribal Groups of Western Odisha



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2. Study the prevalence of chronic diseases such as Sickle Cell Anemia, Kidney failure, Cancer, TB etc among the Tribes and Particularly Vulnerable Tribal Groups of Western Odisha to provide information to professionals for health care.
  3. Documentation of traditional knowledge system for health seeking behaviour and food preservation techniques including millets for the sustainable development of the region.
  4. Study the impact of migration and human trafficking on human development and health (physical and psychological) among the migrants of Western Odisha for generating new policy implications.

#### Recommendations:

*The panel members, after discussion with the Coordinator, advised him to get in to a little more rigorous and analytical research instead of surveys. For example, the COE may look at conceptualising and constructing the vulnerability index of tribes and particularly PVTG of Western Odisha and focus on how to develop social instruments solving their health issues like Sickle Cell anaemia, kidney failure, cancer etc. Accordingly, the proposal has been modified.*

#### Recommended Budget for 2023-24(Released now)

Items	Recommended Budget for 2023-24 in Rs
Internship Program of one month duration for 50 UG/PG students	2,50,000/-
<b>TOTAL</b>	<b>2,50,000/-</b>

#### Recommended Budget for 2024-25(will be released during financial year 2024-25)

Items	Recommended Budget for 2024-25 in Rs
<b>Non-Recurring:</b>	
PDF/Research Associate @ Rs 50,000/- per month; 1 no.	6,00,000/-
Research Assistant @Rs 20,000/- per month: 1 no.	2,40,000/-
<b>Sub-Total</b>	<b>8,40,000/-</b>
<b>Recurring :</b>	
Computer & Electronic Accessories/ Laboratory equipment & Chemicals	5,30,000/-
Travel//Field work	2,30,000/-
Contingency	2,50,000/-
Conducting Theme meeting	80,000/-
Internship Program of one month duration for 50 UG/PG students	2,50,000/-
<b>Sub-Total</b>	<b>13,40,000/-</b>
<b>TOTAL</b>	<b>21,80,000/-</b>

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3. **Name of the OHEPEE funded RCOE: Centre of Excellence in Nano-science and Technology for Development of Sensors (Estt: 2019), Berhampur University**

**Departments involved:** Physics, Electronics, Chemistry and Zoology

**Proposed Plan:**

1. Attempts shall be made to develop prototypes based on our recent publications in Fibre optics sensors for healthcare, food security and environment.
2. The developed proof of concept prototype for non-invasive HbA1c detection will be further optimized in terms of hardware and programming by validating it through a large number of samples from different hospitals/ patholabs.
3. New and efficient optical fibre sensors will be further investigated for disease detection, detection of food adulteration and quality control, and gas and chemical sensing applications.
4. In addition to the currently developed ZrP based nano composites for dye removal from industry effluents, other efficient materials will be developed for treatment of other chemicals and heavy metals from the effluents. Fabrication of perovskite solar cells shall be attempted based on our recent simulation results in collaboration with IISER Berhampur, for advancement in sustainable energy solutions. The design and simulation part will be done at CoENSTds and the fabrication and characterization part will be done at IISER Berhampur.
5. Surface enhanced Raman Spectroscopy (SERS) based Fibre sensors shall be attempted which is a new and emerging area in fiber optic sensor. This work will be carried out in collaboration with IISER Berhampur. This work has already been started. Safe drinking water has been a problem for the people living in remote villages. CoENSTds shall attempt to provide low-cost solutions based on nanotechnology for bacteria free water to the remote villages in the state of Odisha.
6. Surveillance of Pesticide Residues in Rushikulya River Basin and Development of Low-cost Sensors and Nano-composites for its Detection and Treatment.

**Recommendations:**

*The panel members are of the opinion that since the RCOE has not only fulfilled its objectives , but also provided many outreach activities and in future, ' will also work in the direction of fulfilling societal needs of the local people, such as providing safe drinking water and pesticide detection and treatment in Rushikulya River Basin. The fund utilization status is also satisfactory. However, since the sensors are aimed at the health parameter indication, the investigation should rigorously emphasize validation aspects with large number of real time data over the entire spectrum of parametric values.*

**Recommended Budget for 2023-24 (Released now)**

Items	Recommended Budget for 2023-24 in Rs
Visitor Scientific Interaction Program and Thematic meeting work shop	50,000/-
Outsourcing of Works and minor fabrication	1,00,000/-
Contingent Expenditure	1,00,000/-
Materials, Components, Chemicals & Glassware	1,00,000/-



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Fibre Components	5,00,000/-
Travel	50,000/-
Internship Program for 30 UG / PG students of 1 month duration	1,50,000
<b>Total</b>	<b>10,50,000/-</b>

**Recommended Budget for 2024-25(will be released during financial year 2024-25)**

Items	Recommended Budget for 2023-24 in Rs
<b>Non-Recurring:</b>	
PDF/Research Associate@ 50,000/- per month : 02 no.	12,00,000/-
Research Assistant @ Rs 20,000/- per month: 1 no	2,40,000/-
<b>Sub-Total:</b>	<b>14,40,000/-</b>
Internship Program for at least 30 UG / PG students of 1 month duration	1,50,000/-
Visitor Scientific Interaction Program and Thematic meeting work shop	2,00,000/-
Maintenance of Equipment	2,00,000/-
Outsourcing of Works and minor fabrication	5,30,000/-
Contingent Expenditure	2,00,000/-
Materials, Components, Chemicals & Glassware	3,80,000/-
Fibre Components	2,00,000/-
Travel	2,00,000/-
	<b>20,60,000/-</b>
<b>Total</b>	<b>35,00,000/-</b>

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- 4. Name of the OHEPEE funded RCOE: Bio- prospecting of Ethno-pharmaceuticals from Southern Odisha (Estt. 2020), Berhampur University**
- Departments involved:** Biotechnology and Botany

**Proposed Plans:**

- Genetic profiling of high yielding genotypes of targeted medicinal plants and their ex-situ conservation
- Scaling up of the production of lead compounds (e.g. Taraxerol and delphinidin) using *in vitro* raised tissues through genetic transformation, callus culture and hairy root culture.
- Extraction of Phytochemicals, chemo-profiling, and characteriza-tion of bioactive compounds from several medicinal plants obtained from Eastern Ghats range.
- Increment of bioavailability and efficacy of delphinidin and taraxerol application through nano-formulations
- Evaluation of the therapeutic outcome of the plant-based extracts, developed formulations, purified bioactive metabolites and plant-based drugs against the pathogens, cell lines and in vivo models.



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**Recommendations:**

*The panel members are of the opinion that since the outcome of the current project in terms of the product development, which have much impact on health sector and the research publications are of high impacts and published in Q1 and Q2 journals, the present RCOE should be supported to extend the projects with the following budgets.*

**Recommended Budget for 2023-24(Released now)**

Items	Recommended Budget for 2023-24 in Rs
Internship Program of one month duration for 50 UG/PG students	2,50,000/-
<b>TOTAL</b>	<b>2,50,000/-</b>

**Recommended Budget for 2024-25(will be released during financial year 2024-25)**

Items	Recommended Budget for 2024-25 in Rs
<b>Non-Recurring:</b>	
PDF/Research Associate @ Rs 50,000/- per month; 1 no.	6,00,000/-
Research Assistant @ Rs 20,000/- per month: 3 nos	7,20,000/-
<b>Sub-Total</b>	<b>13,20,000/-</b>
<b>Recurring :</b>	
Chemicals and Glass wares and labwares etc.	10,00,000/-
Maintenance and repairing of equipment	70,000/-
Outsourcing works on Mol. Biology and sequencing services	6,50,000/-
Travel//Field work	50,000/-
Contingency including hiring of labourer per day basis for field work as and when required	1,10,000/-
Conducting Theme meeting	50,000/-
Internship Program of one month duration for at least 50 UG/PG students	2,50,000/-
<b>Sub-Total</b>	<b>21,80,000</b>
<b>TOTAL</b>	<b>35,00,000/-</b>

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**5. Name of the OHEPEE funded RCOE: Bio- Resource Management and Energy Conservation Material Development (Establishment: 2018), Fakir Mohan University**

**Departments involved:** Environmental Science, Bioscience & Biotechnology and Physics

This RCOE has two components: **Component A** deals with biodiversity and bio-prospecting of different biological organisms of Coastal areas and eastern ghats of North Odisha region and their vulnerability status , impact of anthropogenic activities on the ecosystem and their management, while **Component B** deals with the development of new nano structure materials and polymer composites for the fabrication of the electrodes for efficient energy storage and management



## Proposed Plan:

### Component "A"

- Floristic Studies, phytochemical analysis and in vitro conservation of plants of Kuldiha Wildlife Sanctuary, Hadgarh Wildlife Sanctuary and mangrove forests of northern coastal Odisha.
- Isolation and characterization of salt responsive genes in betel vine
- Bio-prospecting of Betel vine for societal benefit
- Assessment of surface and groundwater quality of northern coastal Odisha and their eco-friendly management.
- Ichthyofaunal diversity study through genetic level for identification of different commercially important fish and their biochemical assay.

### Component "B"

- Development of new materials for all solid-state rechargeable battery and hybrid energy devices
- Synthesis and characterization of nanomaterials, conducting polymers and their composites
- Fabrication of electrodes and their characterization & performance evaluation.
- Development of new electrode materials for superior energy density and power capacity, better cycle life and safety
- Design and construction of rechargeable battery, supercapacitor and hybrid devices

## Recommendations:

*The panel members are of the opinion that since the progress of the RCOE in both the components is not up to satisfaction, especially in the matter of utilization of grants (only 69% utilization during last 05 yrs) and purchase of equipment, publication of research papers in Q1 journals and production of patent etc., the RCOE may be supported for internship programme only in 2023-24 and support may be provided for manpower engagement and other contingent materials during 2024-25. The PI was advised to make component "A" more focussed in terms of research and component "B" may be supported for developing a prototype anode for testing.*

## Recommended Budget for 2023-24(Released now)

Item	Recommended budget for 2023-24 in Rs
Internship Program of one month duration for 50 UG/PG students	2,50,000/-
<b>Total</b>	<b>2,50,000/-</b>

## Recommended Budget for 2024-25 (will be released during financial year 2024-25)

Items	Recommended Budget for 2024-25 in Rs
<b>Manpower</b>	
PDF/Research Associate @ Rs 50,000/- per month; 2 no.	12,00,000/-



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Research Assistant @ 20,000/- per month: 2 nos	4,80,000/-
<b>Sub-Total</b>	<b>16,80,000/-</b>
<b>Recurring :</b>	
Visitors, programme	50,000/-
Chemicals and Glass wares and plastic wares etc.	3,30,000/-
Maintenance and repairing of equipment	50,000/-
Outsourcing works	1,00,000/-
Travel//Field work	50,000/-
Contingency	50,000/-
Conducting Theme meeting	1,00,000/-
Internship Program of one month duration for 50 UG/PG students	2,50,000/-
<b>Sub-Total of Recurring Grant</b>	<b>9,80,000/-</b>
<b>TOTAL</b>	<b>26,60,000/-</b>

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**6. Name of the OHEPEE funded RCOE: Centre of Excellence in Studies on Tribal & Marginalized Communities, (Estt.: 2018), Utkal University**

**Departments involved:** Anthropology, Economics, Odia, Psychology, Pharmacy, Sociology and Statistics

**Proposed work:**

1. To study the association between climate change and disasters with depletion of selected cultural heritages and the community's coping mechanism
2. To study the association between climate change and disasters with health and food security and community coping mechanism
3. To explore/examine the scope for utilization of digital technology in climate change and disaster mitigation among selected PVTG communities

**Recommendations:**

*The panel members are of the view that the COE is not working as expected and far from achieving the target fixed at the time of initiation of the centre. As they have huge chunk of unutilized grants, the COE may not be supported for the year 2023-24, however, for 2024-25, following amount may be recommended to sustain the activities of the RCOE.*

**Recommended Budget for 2023-24: NIL**

**Recommended Budget for 2024-25 (will be released during financial year 2024-25)**

Items	Recommended Budget for 2024-25 in Rs
<b>Non-Recurring (Equipment):</b>	
Audio-visual gadgets, software etc	1,00,000/-
PDF/Research Associate @ Rs 50,000/- per month; 2 no.	12,00,000/-
Project Assistant @12,000/-per month: 2 nos	2,88,000/-



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<b>Sub-Total</b>	<b>15,88,000/-</b>
<b>Recurring :</b>	
Chemicals and consumables for Photochemistry Lab	1,00,000/-
Field work among 13 PVTG communities	1,00,000/-
Contingency	1,00,000/-
Conducting Theme-based workshop on capacity building of students, scholars and FDP	50,000/-
Student Internship of 01 month duration for 30 Nos of UG / PG students	1,50,000/-
<b>Sub-Total</b>	<b>5,00,000/-</b>
<b>TOTAL</b>	<b>20,88,000/-</b>

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**7. Name of the OHEPEE funded RCOE: Centre of Excellence on Integrated Omics and Computational Biology (Estt: 2018), Utkal University**

**Departments involved:** Biotechnology, Botany and Zoology

**Proposed Plan:**

Theme 1: Protecting plants from metal toxicity by green technology and microbial inoculation

Theme 2: Integrated OMICS and computational approaches for understanding the disease process associated with neuro-degeneration.

Theme 3: Translational Research in Amphibian Regeneration

**Recommendations:**

*The panel members are of the view that except the theme 1 of the objective (Understanding the stress-resilience in crops and its mitigation by Green Technology: Bio-prospecting of natural compounds from marine bio-resources particularly with reference to bio-stimulants for plant growth and stress mitigation), progress in other thematic areas has been excellent. Therefore, they should be supported for internship programme in the 2023-24 as they have developed adequate facilities and also for other programs to sustain the research program in 2024-25 as given below: The activities under theme-1, namely to developing resilient plants are found subcritical and has not picked up. Therefore, the committee recommended that the funds provided must be used under activities 2 and 3 primarily. A detailed review of Activity 1 may be scheduled in six months to assess its closure possibilities.*

**Recommended budget for the Year 2023-24 (Released now)**

<b>Item</b>	<b>Recommended Budget For the Year 2023-24 in Rs</b>
Student Internship (in INR) for 30 Nos of UG/ PG students of 1 month duration	1,50,000/-
<b>TOTAL</b>	<b>1,50,000/-</b>



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**Recommended budget for the Year 2024-25(will be released during financial year 2024-25)**

Item	Recommended Budget For the Year 2024-25 in Rs
<b>Non-Recurring:</b>	
Research Associate/ Post- Doctoral Fellow @50,000/- per month- (1 No. for Theme 2 or 3)	6,00,000/-
Research Assistant @Rs 20,000/- per month : 2 nos	4,80,000/-
Project Assistant@ Rs 12,000/- per month : 2 nos	2,88,000/-
<b>Sub-Total</b>	<b>13,68,000/-</b>
<b>Recurring:</b>	
Visitor Program	50,000/-
Consumable/ Custom Services	7,00,000/-
Theme meeting/ workshop for research scholars/ college teachers	1,00,000/-
Maintenance of equipment	3,00,000/-
Publication of critical texts	2,32,000/-
Travel Grant	50,000/-
Contingency	1,50,000/-
Student Internship of 01 month duration for 30 Nos of UG / PG students	1,50,000/-
<b>Sub-Total</b>	<b>17,32,000/-</b>
<b>Grand Total</b>	<b>31,00,000/-</b>

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**8. Name of the RUSA 2.0 funded RCOE: Centre for Environment, Climate Change and Public Health, (Estt: 2018), Utkal University**

**Departments involved:** Geography, Botany and Zoology

**Proposed Plan:**

1. Assessment of urban mobility decarbonization impacts across the range of co-benefits: congestion, fuel saving and climate.
2. To evaluate de-carbonization as Sustainable Development Goals (SDGs) 3 (Good health and wellbeing) and 11 (sustainable cities and communities).
3. Assessment of effect of *Piper longum* in immunomodulation by targeting innate immunity.
4. Validation of anticancer compounds of *Dillenia pentagyna*.
5. Validation of compounds from two extracts on the growth and resistance of black tiger shrimp.
6. Isolation and characterization of antimicrobial compounds against *Candida* and *Staphylococcus* species.
7. Evaluation of toxicity and bioactivity of silver and zinc oxide nanoparticles



### Novelty of the proposed work:

1. This project involves the discovery of novel ligands for drug resistance targets from the early stages including identification and validation of compounds (antibiotics/anticancer) using a multidisciplinary approach followed by studies on their mechanism of action.
2. The mechanism of action of purified active compounds will be studied by selecting resistant bacteria and sequencing their genome.
3. Compounds either unknown or known that exhibit different resistance profiles to assure the identification of with a novel mechanism of action is the priority.

### Recommendations:

*Considering its size, scope and present relevance, the progress of this RCOE is far below expectation. The panel members are also apprehensive about the continuity of this COE in future. However, the members opined that since the objectives of the RCOE has societal relevance like appraising the contribution of clean technologies and zero emission mobility benefits and co-benefits in terms of greenhouse gas reduction, socio-economic benefits and development of novel therapeutics, it may be supported with the following budget for 2024-25 and only assistance for internship in 2023-24. OSHEC is requested to schedule a repeat review in six months to assess its progress.*

### Recommended budget for the Year 2023-24(Released now)

Item	Recommended Budget For the Year 2023-24 in Rs
Student Internship of 01 month duration for 30 Nos of UG / PG students	1,50,000/-
<b>TOTAL</b>	<b>1,50,000/-</b>

### Recommended budget for the Year 2024-25 (will be released during financial year 2024-25)

Item	Recommended Budget For the Year 2024-25 in Rs
<b>Non-Recurring:</b>	
Research Associate/ Post- Doctoral Fellow @50,000/ per month- (1 No.)	6,00,000/-
Research Assistant @ 20,000/- per month: 2 nos	4,80,000/-
<b>Sub-Total</b>	<b>10,80,000/-</b>
<b>Recurring:</b>	
Consumable/ Custom Services	4,00,000/-
Theme meeting/ workshop for research scholars/ college teachers	50,000/-
Travel Grant	50,000/-
Contingency	1,20,000/-
Student Internship of 01 month duration for 30 Nos of UG / PG students	1,50,000/-
<b>Sub-Total</b>	<b>7,70,000/-</b>
<b>Grand Total</b>	<b>18,50,000/-</b>

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9. Name of the RUSA 2.0 funded RCOE: Centre Of Excellence in Advanced Materials and Applications (Estt.: 2018): Utkal University

**Departments involved:** Chemistry and Physics

**Proposed work:**

1. Nano-materials for wastewater treatment and sustainable energy (Ongoing)
2. Value added materials from waste
3. Development of Organometallic Ag(I), Au(I/III), Pt(II) and Ir(III)-NHC complexes for antibacterial/ anticancer studies

**Recommendations:**

*The panel members were not satisfied with the progress of the works undertaken by the RCOE, particularly since no works seems to have been done on the CO2 capture area. It was nevertheless recommended due to its significance to the current issues of the society such as waste water treatment and sustainable energy and also development of anticancer/anti-bacterial compounds. A repeat review may be scheduled in six months to assess progress.*

**Recommended budget for the Year 2023-24(Released now)**

Item	Recommended Budget For the Year 2023-24 in Rs
Student Internship of 01 month duration for 50 Nos of UG / PG students	2,50,000/-
<b>TOTAL</b>	<b>2,50,000/-</b>

**Recommended budget for the Year 2024-25(will be released during financial year 2024-25)**

Item	Recommended Budget For the Year 2024-25 in Rs
<b>Non-Recurring:</b>	
Research Associate/ Post- Doctoral Fellow @50,000/ per month- (1 No.)	6,00,000/-
Research Assistant @ Rs 20,000/- per month: 02 nos	4,80,000/-
<b>Sub-Total</b>	<b>10,80,000/-</b>
<b>Recurring</b>	
Consumables	4,00,000/-
Theme meeting/ workshop for research scholars/ college teachers	50,000/-
Equipment maintenance	2,00,000/-
Contingency	1,70,000/-
Student Internship of 01 month duration for 50 Nos of UG / PG students	2,50,000/-
<b>Sub-Total</b>	<b>10,70,000/-</b>
<b>Grand Total</b>	<b>21,50,000/-</b>



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10. Name of the RUSA 2.0 funded RCOE: Centre for High Energy and Condensed matter Physics (Estt: 2018), Utkal University

Department involved: Physics

**Proposed Plan:**

1. Internship training to 30 UG and PG students of 30 days duration
2. To provide a high-performance computing facility for excellent academic research
3. To develop innovative technologies and applications that requires the use of high performance computers with potential application
4. Student/faculty training for advance research and will organize national/international conference.
5. The facility will be used for data analysis and will be updated for GRID computing.
6. Establishment of a data science centre & Extension of computing facility for big-data analysis.
7. Internship training to 30 UG and PG students of 30 days duration

**Recommendation:**

*Since the Dept of Physics houses two costly and important instruments such as Raman Spectroscopy, and High Performing Computing (HPC) system along with Software which can be used for precision calculations in Nuclear and Atomic many body problems and Computational Material Science/Condensed Matter Physics problems, this RCOE is to be supported at least for carrying out research using these sophisticated instruments. Their maintenance is of utmost importance. Hence, they should be supported with following assistance.*

**Recommended budget for the Year 2023-24(Released now)**

Item	Recommended Budget For the Year 2023-24 in Rs
Student Internship of 01 month duration for 30 Nos of UG / PG students	1,50,000/-
<b>TOTAL</b>	<b>1,50,000/-</b>

**Recommended budget for the Year 2024-25(will be released during financial year 2024-25)**

Item	Recommended Budget For the Year 2024-25 in Rs
<b>Non-Recurring:</b>	
DG (Diesel Generator) Sets for HPC	10,00,000/-
Research Assistant @20,000/-per month	2,40,000/-
<b>Sub-Total:</b>	<b>12,40,000/-</b>
<b>Recurring:</b>	



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Repair of PPMS including consumables	16,10,000/-
Student Internship of 01 month duration for 30 Nos of UG / PG students	1,50,000/-
<b>Sub-Total:</b>	<b>17,60,000/-</b>
<b>TOTAL</b>	<b>30,00,000/-</b>

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**11. Name of the OHEPEE funded RCOE: Centre for Translation and Life Writing (Estt: 2020), R.D. Women's University**

**Departments involved:** English, Hindi, Odia, Sanskrit

As submitted by the RCOE, RDWU, the proposed works on "Women Empowerment through Capacity Building" to highlight the narrative of progress achieved through a collective effort of women working under SHG, to provide a platform for internship for students of RDWU and beyond, MoU signing between RDWU and Hanseo University, Korea to provide internship program to students and offering of Editing and Publishing courses to the students to enhance their employability in emerging sectors like print and social media etc.....do not relate to the present objectives of RCOE.

**Recommendations:**

*The proposed work deviates from the goals and objectives of the RCOE, rather it has diverted its objectives more towards SHG, Mission Shakti programme etc. Therefore, the panel members are of the opinion that the earlier objectives should be reflected in the proposed work and its mission should be fulfilled. The members agreed to provide fund only for internship programme for the UG and PG students on translation, editing, publishing, application of Artificial Intelligence in translation etc to enhance the employability in emerging sectors like print and social media.*

**Recommended Budget:**

**Recommended budget for the Year 2023-24 (Released now)**

Item	Recommended Budget For the Year 2023-24 in Rs
Student Internship of 01 month duration for 30 Nos of UG / PG students	1,50,000/-
<b>TOTAL</b>	<b>1,50,000/-</b>

**Recommended budget for the Year 2024-25(will be released during financial year 2024-25)**

Item	Recommended Budget For the Year 2024-25 in Rs
Student Internship of 01 month duration for 30 Nos of UG / PG students	1,50,000/-
<b>TOTAL</b>	<b>1,50,000/-</b>

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**ABSTRACTS**

**OF**

**THE RECOMMENDED BUDGET OF SUSTAINABILITY GRANTS UNDER MRIP FOR  
RESEARCH CENTRES OF EXCELLENCE (RCOE's)**

Sl. No.	Name of RCOE	University & Funding Agency	Recommended Budget in Lakhs	
			2023-24 (Released now)	2024-25 (will be released during FY 2024-25)
1	Natural Products and Therapeutics	<i>Sambalpur Univ.-OHEPEE</i>	35.00	35.00
2	Regional Development and Tribal Studies	<i>Sambalpur Univ.-OHEPEE</i>	2.50	21.80
3	Centre for Nano Science and Technology for Development of sensors	<i>Berhampur Univ.-OHEPEE</i>	10.50	35.00
4	Centre for Bio- prospecting of Ethno-pharmaceuticals in Southern Odisha	<i>Berhampur Univ.-OHEPEE</i>	2.50	35.00
5	Centre for Bio-Resource Management and Energy Conservation Material Development	<i>F.M. Univ.- OHEPEE</i>	2.50	26.60
6	Centre for Studies on Tribal and Marginalized Communities	<i>Utkal Univ.- OHEPEE</i>	NIL	20.88
7	Integrated Omics and Computational Biology	<i>Utkal Univ.- OHEPEE</i>	1.50	31.00
8	Centre for Environment, Climate change & Public Health	<i>(Utkal Univ.- RUSA 2.0)</i>	1.50	18.50
9	Centre for Advanced Materials and Application	<i>Utkal Univ.- RUSA 2.0</i>	2.50	21.50
10	Centre for High Energy and Condensed matter physics	<i>Utkal Univ.- RUSA 2.0</i>	1.50	30.00
11	Centre for Translation and Life Writing	<i>R.D.W. Univ.- OHEPEE</i>	1.50	1.50
		<b>TOTAL</b>	<b>61.50</b>	<b>276.78</b>
			(Rupees Sixty-one lakh and fifty thousand)only	(Rupees two hundred seventy six lakh and seventy eight thousand) only