Accelerating Higher Education Expansion and Development Operation (AHEAD)









Classification of STEM & HEMS

| UNIVERSITY | STEM (FACULTY, INSTITUTE) | HEMS (FACULTY, INSTITUE, CAMPUS) |
|---|---|---|
| University of Colombo | Medicine, Science, Institute of Indigenous Medicine, University of Colombo School of Computing | Arts, Education, Law, Management & Finance, Sri Palee, Graduate Studies |
| University of Peradeniya | Agriculture, Dental Sciences, Engineering, Medicine, Science, Veterinary Medicine & Animal Science, Allied Health Science, PGIS, PGIA | Arts, Management |
| University of Sri Jayewardenepura | Applied Sciences, Medical Science, Technology, Engineering, | Humanities & Social Science, Management Studies & Commerce, Graduate Studies |
| University of Kelaniya | Medicine, Science, Computing &Technology, Gampaha Wickramarachchi Ayurvedic Institute | Commerce & Management Studies, Humanities, Social Science, Graduate Studies |
| University of Moratuwa | Architecture, Engineering, Information Technology | |
| University of Jaffna | Agriculture, Medicine, Engineering, Science, Vauniya Campus (Applied Science), Sidda Medicine Unit | Arts, Management Studies & Commerce, Graduate Studies, Vauniya Campus (Business Studies) |
| University of Ruhuna | Agriculture, Engineering, Medicine, Science, Fisheries and Marine Science, Technology | Humanities and Social Sciences, Management & Finance, Graduate Studies |
| Eastern University Sri Lanka | Agriculture, Health Care Sciences, Science, Trincomalee Campus (Applied Sciences, Sidda Unit) | Arts& Culture, Commerce & Management, Trincomalee Campus (Communication & Business Studies) Swami Vipulananda Institute of Aesthetic Studies, |
| South Eastern University of Sri Lanka | Applied Sciences, Engineering | Arts& Culture, Management & Commerce, Islamic Studies & Arabic Language |
| Rajarata University of Sri Lanka | Agriculture, Applied Sciences, Medicine& Allied Sciences | Management Studies, Social Sciences & Humanities |
| Sabaragamuwa University of Sri Lanka | Agricultural Sciences, Applied Sciences, Geomatics | Management Studies, Social Sciences & Languages |
| Wayamba University of Sri Lanka | Agriculture & Plantation Management, Applied Sciences, Livestock Fisheries & Nutrition | Business Studies & Finance |
| Uva Wellassa University of Sri Lanka | Animal Science & Export Agriculture, Science & Technology | Management |
| University of Visual and Performing Arts | | Dance & Drama, Music, Visual Arts |
| Open University of Sri Lanka | Engineering & Technology, Health Sciences, Natural Sciences | Education, Humanities & Social Sciences |

Area of Research Specialization

| Grant Type | Broad Research/ Study Area | Discipline (Indicative) | Sub-discipline (specialization) e.g. Molecular biology, Social anthropology, Pediatrics, behavioral sociology, industrial economics Civil engineering, Human resource management, Latex technology, Particle physics, Organic chemistry, |
|------------|---|---|--|
| STEM | Sciences Technology Engineering Medicine | Biology, Chemistry, Physics, Mathematics Statistics, Computer science, Medical and health sciences, Dental Surgery, Veterinary Science, Agriculture, Food sciences, Marine sciences, Environmental sciences, Animal sciences Engineering, Technology areas, Surveying, Town & country planning, Architecture | |
| HEMS | Humanities Education Management Social Sciences Law | Anthropology, Economics Sociology, Political science, Geography History, Philosophy Psychology, Demography Education subjects, Communication studies and media, Peace and conflict resolution, Language and literature, Cultural studies, Music, dance, arts and design, Management studies, Commerce, Hospitality and tourism,Religious studies, Visual & Technological Arts/Visual Arts | |

Title page

- Title of the research project:
- Area of specialization of the research study (Annex 4)
- University/Institute
- Grant type: DOR 1 STEM/DOR 1 HEMS/ DOR STEM-HEMS
- Name/s of reviewers who should NOT review the proposal can be incorporated in the cover letter

Information on the research team for evaluators

- Name:
- ID number:
- Present position/designation:
- Highest academic qualification:
- Field of specialization:
- Official address:
- Mobile Phone:
- Email address:

Literature survey

- Give a <u>summary</u> of the literature survey in the relevant research area based on the literature and cite the references.
- Patent landscape search

Proposal format continued

- Research problem/s & Justification
- Methodology
- Time sequence of project actions
- Economic and/or social and/or cultural relevance
- Budget justification
- Institutional commitment

The scoring system: a worked example

| Section | Weight (A) | Score (B) | Actual mark (A x B/5) |
|--|---------------|-----------|-----------------------|
| Research team | 10 | 3 | 6 |
| Literature survey | 15 | 4 | 12 |
| Research problem/s& Justification | 15 | 3 | 6 |
| Methodology | 25 | 4 | 20 |
| Time sequence of project actions | 15 | 3 | 9 |
| Economic, social and educational relevance | 10 | 3 | 6 |
| Budget justification | 10 | 3 | 6 |
| Total score | 100 | | 65 |

Next step in the selection process: discussion stage

- (a). The minimum score received for each criterion should be 3 (at least 60% of the points allotted for each criterion) **AND**
- (b). The total score should be at least 65 out of 100

The decision for the discussion stage will however depend on the number of available grants for the DORs.

Discussion stage

- The overall final score for the proposal would be the average of the total scores of the desk evaluation and discussion stages.
- Final Score = (Desk evaluation actual mark + Discussion stage actual mark)/2
- The final score must be a minimum 70 out of 100 to receive a grant under DOR

Table A. Proposed Budget

| Action | | Estimated Cost (LKR) | | | | | | | | | | |
|--------|------------------------|----------------------|-------|-------------------------|---------------------------------|--|-------|--|--|--|--|--|
| | Sub-action | GOODS | WORKS | CONSULTANCY SERVICES | NON- CONSULTANCY SERVICES | OTHER VALUE ADDED ACTIVITIES (OVAA) | TOTAL | | | | | |
| 1 | 1.1 | | | | | | | | | | | |
| | 1.2 | | | | | | | | | | | |
| | 1.3 | | | | | | | | | | | |
| | Sub total for action 1 | | | | | | | | | | | |
| 2 | 2. 1 | | | | | | | | | | | |
| | 2.2. | | | | | | | | | | | |
| | 2.3 | | | | | | | | | | | |
| | Sub total for action 2 | | | | | | | | | | | |
| 3 | 3.1 | | | | | | | | | | | |
| | 3.2. | | | | | | | | | | | |
| | Sub total for action 3 | | | | | | | | | | | |
| 4 | 4.1 | | | | | | | | | | | |
| | 4.2 | | | | | | | | | | | |
| | 4.3 | | | | | | | | | | | |
| | Sub total for action 4 | | | | | | | | | | | |
| 5 | 5.1 | | | | | | | | | | | |
| | 5.2 | | | | | | | | | | | |
| | Sub total for action 5 | | | | | | | | | | | |
| | Total | | | | | | | | | | | |

Table B. Overall Action Plan

| Action | Sub-Action | Year 1 | | | | Year 2 | | | | Year 3 | | | |
|--------|------------|--------|----|----|----|--------|----|----|----|--------|----|----|----|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| 1 | 1.1 | | | | | | | | | | | | |
| | 1.2 | | | | | | | | | | | | |
| | 1.3 | | | | | | | | | | | | |
| 2 | 2.1 | | | | | | | | | | | | |
| | 2.2 | | | | | | | | | | | | |
| | 2.3 | | | | | | | | | | | | |
| 3 | 3.1 | | | | | | | | | | | | |
| | 3.2 | | | | | | | | | | | | |
| 4 | 4.1 | | | | | | | | | | | | |
| | 4.2 | | | | | | | | | | | | |
| | 4.3 | | | | | | | | | | | | |
| 5 | 5.1 | | | | | | | | | | | | |
| | 5.2 | | | | | | | | | | | | |

Example for HEMS

| Action | Sub-Action | Year 1 | | | | Year 2 | | | | Year 3 | | | |
|-------------------|--|--------|----|----|----|--------|----|----|----|--------|----|----|----|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| 1. Expanded | 1.1. Review of relevant literature | 1 | | | | | | | | | | | |
| literature review | 1.2. Write-up of the literature review | 1 | | | | | | | | | | | |
| 2. Questionnaire | 2.1. Initial questionnaire | 1 | | | | | | | | | | | |
| preparation | 2.2. Pilot testing of questionnaire | 1 | | | | | | | | | | | |
| | 2.3. Final questionnaire | | 1 | | | | | | | | | | |
| 3 Data collection | 3.1 Sample selection | | 1 | | | | | | | | | | |
| and cleaning | 3.2. Enumerator training | | 1 | | | | | | | | | | |
| | 3.3. Implementation of survey | | 1 | 1 | 1 | 1 | | | | | | | |
| | 3.4. Data entry | | | 1 | 1 | 1 | 1 | | | | | | |
| | 3.5. Data cleaning | | | 1 | 1 | 1 | 1 | | | | | | |
| 4. Analysis and | 4.1. Initial statistical analysis | | | | | | | 1 | | | | | |
| report writing | 4.2 Econometric analysis | | | | | | | 1 | 1 | | | | |
| | 4.3. Conference volumes | | | | | | | | 1 | | 1 | | |
| 5. Publications | 5.1. Production of working paper | | | | | | | | | 1 | | | |
| | 5.2. Submission to journal/books | | | | | | | | | | | 1 | |

Example for STEM

| Action | Sub-Action | | Year 1 | | | Year 2 | | | | Year 3 | | | |
|-------------------------------|---------------------------------|----|--------|----|----|--------|----|----|----|--------|----|----|----|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| 1. Expanded literature review | 1.1. Patent landscape search | 1 | | | | | | | | | | | |
| | 1.2. Write-up of the literature | 1 | | | | | | | | | | | |
| | review/patent landscape | | | | | | | | | | | | |
| | search | | | | | | | | | | | | |
| 2. Ordering of | 2.1. Purchase of equipment | | 1 | | | | | | | | | | |
| chemicals/equipment/software | 2.2. Purchase of chemicals | 1 | | | | | | | | | | | |
| | 2.3. Purchase of software | | 1 | | | | | | | | | | |
| | 2.4. Distillation of solvents | 1 | | | | | | | | | | | |
| 3 Trial experiments | 3.1 Trials with already | | 1 | 1 | | | | | | | | | |
| | available chemicals | | | | | | | | | | | | |
| | 3.2. Purification | | | 1 | 1 | | | | | | | | |
| | 3.3. Characterization | | | | 1 | 1 | | | | | | | |
| | 3.4 Modelling experiment to | | | | | | 1 | | | | | | |
| | study the mechanism | | | | | | | | | | | | |
| | 3.4. Research communication | | | | | | | 1 | | | | | |
| 4. Further experiments with | 4.1. Experiments with different | | | | 1 | 1 | 1 | | 1 | 1 | 1 | | |
| purchased chemicals/change | starting materials | | | | | | | | | | | | |
| experimental conditions | 4.2 Experiments with different | | | | 1 | 1 | 1 | | 1 | 1 | 1 | | |
| | reaction conditions | | | | | | | | | | | | |
| | 4.3. Purification & | | | | 1 | 1 | 1 | | 1 | 1 | 1 | | |
| | characterization | | | | | | | | | | | | |
| 5. Publications | 5.1. Patent applications | | | | | | | | | | | 1 | |
| | 5.2. Journal articles | | | | | | | | | | | | 1 |

DOR: Key Performance Indicators

| No. | Key Performance Indicators | Baseline | Year 1 | Year 2 | Year 3 | Final | Evidence* |
|-----|--|----------|--------|--------|--------|-------|-----------|
| 1 | Number of working papers | 0 | | | | | |
| 2 | Number of communications (abstract) | 0 | | | | | |
| 3 | Number of papers presented at national conferences/symposia | 0 | | | | | |
| 4 | Number of papers presented at international conferences/symposia | 0 | | | | | |
| 5 | Number of research publications in peer reviewed national journals | 0 | | | | | |
| 6 | Number of research publications in peer reviewed internationally indexed journals | 0 | | | | | |
| 7 | Number of research publications as books or monographs published by reputed national publishers | 0 | | | | | |
| 8 | Number of research publications as books or monographs published by reputed international publishers | 0 | | | | | |

Baseline, end of year 1-3 are not cumulative. The final KPI is cumulative

^{*} Evidence need not be filled at the proposal writing stage

THANK YOU