AERO SPACE SOCIETY OF INDIA

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Research & Development Centre

AEROSPACE SOCIETY OF INDIA is planning to develop a real time Research and Development Centre to infuse in new Technology, Management, Basic Sciences related Research Programmes. This Centre will also create a new avenue for today's global changes in the environment. This centre calls for socio economic bodies to plan for the need of research in relation to human and environmental requirements to utilize the modern technology and infrastructure. The AEROSPACE SOCIETY OF INDIA seeks to facilitate the development of new research initiatives that cut across the traditional disciplinary boundaries by means of commonly identifiable centers, institute programmes, laboratories. The Highest Order of Excellence, in strategic planning framework, that provides a broad, flexible set of ideas aimed at moving toward an overarching interdisciplinary vision will be initiated. This will enhance the University's value to students, faculty, staff, and society. AEROSPACE SOCIETY OF INDIA wants to leverage its "size, diversity, and interdisciplinary culture into competitive advantages that lead to reputation gains." The University research center will play an important role in broadening the knowledge base which leads to new discoveries and which informs new policies that ensure discoveries are incorporated into society in a productive and beneficial manner. These same centers also, simultaneously, play an important role in educating and training the next generation of innovators, upon whom the quality of the ideas of tomorrow depends. The University's commitment to strategic and potentially transformative initiatives in R & D sector will lead towards this goal of establishment of entirely new centers as well as the reorganization or redesigning of existing programs if any.

Guidelines for Establishing Organized Research Units:

The AEROSPACE SOCIETY OF INDIA Office of Research seeks to facilitate the development of new research initiatives that cut across traditional disciplinary boundaries. One effective way of doing this is through the creation of multi-investigator collaborator units, commonly identified as centers, institutes, programs, laboratories. Collectively, we refer to these as 'Organized Research Units' (ORUs).

This document creates the act for guidelines for establishing ORUs

I. Definition of an ORU (Organized Research Unit)

Based on a benchmarking exercise that evaluated how several of our peer institutions define and manage ORUs, we have developed definitions for the

various terms used to identify ORUs that are established at the *AEROSPACE SOCIETY OF INDIA.*

Research Institute – is a single or multi-disciplinary unit which is organized primarily to conduct research, this may encompass the active involvement of research scholars, Post Graduates and Graduates

Education of under graduate, community outreach, or clinical services etc., is characterized by organizational stability, program autonomy, and a broad program of study. Typically, the institute funding for basic and applied research is derived from multiple sources rather than a single source (e.g., one grant). They are expected to have substantial external funding (as per requirements), a dedicated administrative staff and commitments from faculty. A program of research training and the required infrastructure that may include organized fund-raising activities. Faculty and research/teaching staff in institutes usually participates in interdisciplinary graduate/undergraduate programs will be generated. Directors of research institutes based within a single school/college typically report to the dean or chair, although the dean and/or chair may recommend an alternative reporting structure. Directors of interdisciplinary institutes in which multiple schools/colleges are substantively involved, and for which substantial central resources (matching central funds) are committed, may have a dual line of reporting; for example, to a vice provost and (an) appropriate dean(s).

Research Center - is a single or multi-disciplinary unit, organized to conduct research around a specific theme or topic, and may have some limited involvement in undergraduate and/or graduate education and/or community outreach activities. Centers are characterized by less autonomy and less independence relative to institutes, and generally have a narrower scope of research interests, but may also include educational, clinical and/or community outreach activities of a narrow scope. Centers are typically focused on a specific issue, project, or policy concern but often encompass interdisciplinary work

spanning various academic fields. The center's lifetime is often limited by the time and financial commitment to completing the particular project. Centers are typically located within departments, institutes, and/or schools/colleges. Center directors typically report to chairs, deans and/or institute directors, but deans and/or chairs may recommend an alternative reporting structure, such as a 'liaison committee' or advisory board (if required by the sponsor), consisting of multiple chairs or directors from participating departments or divisions. Directors of interdisciplinary centers in which multiple schools/colleges are involved generally report to the dean of the school/college in which the center director has his/her primary appointment.

Other terms: The leader of an ORU may also choose other generic names, such as "laboratory," "unit," or "program," to describe the unit, as long as a justification as to why it should not be designated as a center or institute is provided at the time of naming. Programs or units for which research is NOT the primary purpose are not obligated to follow these guidelines, but should not include the term 'research' in the title or primary mission statement. Non-research centers or institutes should seek approval and guidance from the deans and vice provosts most closely associated with their mission.

II) AEROSPACE SOCIETY OF INDIA procedures for establishing new ORUs

A dean or deans may authorize the creation of an ORU; however the Office of the Provost must approve the name of any new research center, institute or other proposed ORU. Deans should send a letter of request for the research establishments for an appropriate approval along with the following information:

1. The proposed name of the new ORU
2. A mission statement
3. A list of the principal faculty members involved, including director(s) and participating researchers
4. A short summary of the ORU's research agenda, including brief descriptions of any funded and/or proposed initial research projects to be managed within the ORU
5. A description of the organizational structure
6. A description of the initial and potential external funding sources
7. A detailed description of the matching funds requested centrally and a summary of the internal sources of support and space (if applicable)

The sanctioning authority of Research will circulate a memorandum to selected campus administrators containing the data provided by the requesting unit. The memo will request their feedback and ask for any concerns regarding the suggested new center or institute name.

Within the first quarter of the establishment of the ORU, the ORU's staff is responsible for creating and maintaining an ORU website, and for making sure the site is added to the "Research Centers".

III) AEROSPACE SOCIETY OF INDIA procedures for central financial support (central matching funds)

Typically, matching funds in the form of direct financial contributions and/or salary cost-sharing are provided only in clear instances where the center includes multiple faculty from different departments and schools/colleges (e.g., is 'interdisciplinary'), and is required by a funding agency, or necessary to be competitively successful. The department chair can assist with determining whether a proposal meets the requirements for receiving cost-share funding.

Requests for items that contribute to infrastructure (equipment, core expertise) will be considered. Salary and expendables may be supported if they are clearly essential to support the administrative infrastructure for the funded work, but are not allowable within the costing rules of the funding program. Salary requests must also include the cost of the associated benefits. Requests for matching funds should follow the process outlined by the Office of Research and utilize the facilities.

Matching funds requests to the sanctioning authority of Research should illustrate how the proposed program addresses the following criteria:

1. Is high-impact, potentially transformational to a field or discipline at the national or international level
2. Crosses traditional disciplinary boundaries (usually involves multiple schools/colleges) with broad impact at AEROSPACE SOCIETY OF INDIA
3. Is potentially transforming to a critical area at AEROSPACE SOCIETY OF INDIA
4. Seeds a new effort with strong potential to excel at AEROSPACE SOCIETY OF INDIA
5. Integrates research and education (facilitates classroom instruction, graduate research training, and/or community outreach)
6. Creates new opportunities (likelihood of fostering additional research opportunities and funding)

IV) ORU Performance Reviews

A performance review of the activities of the ORU should occur no less than every five years to ensure that the research being conducted is high quality.

For ORUs that are subject to periodic outside peer evaluation the successful competing renewal will suffice as the required five-year performance review. ORU PIs will report on the status of their competing renewals. The Office of Research will verify that they were peer reviewed.

If a review of the ORU is not mandated by a funding agency, it is the responsibility of the chair and/or dean of the ORU director to conduct the periodic review. The review process and composition of the review team should be approved by the Office of Research prior to commencement of the review. The recommendations from the Review Committee's report will direct decisions about the future of the ORU. Unfavorable reviews could lead to termination of the ORU by the responsible dean(s), in consultation with the sanctioning authority of Research.

The report sent from the **ORU administrator** to the **review committee** should be less than twenty pages and address the following:

1. **Overview and executive summary**
    a. Include a brief description and main research focus of the ORU (include date of inception), mission, history, and describe any changes that have occurred since the original scope of the ORU (if any)
    b. Description of how the ORU aligns with the mission of the AEROSPACE SOCIETY OF INDIA
    c. Description of the ORUs strengths, weaknesses, opportunities and threats

2. **ORU organizational structure and space**
   a. Description of the organizational structure (or provide organizational chart)
   b. Number of faculty members involved in ORUs research or administration
   c. Types and number of students or scientists involved from external academic organizations
   d. Staff: professional, technical, and administrative
   e. Description of advisory committees, external partners and campus partners
   f. Description of current and planned grant support
   g. Description of resource challenges

3. **Facilities and equipment**
   a. Description and amount of space currently occupied, space challenges, and plans for expansion or a move to a new location
   b. List of major equipment, equipment needs, and planned major equipment purchases

4. **ORUs research accomplishments over the preceding five year period**
   a. Overview of the progress and quality of the research accomplished and in-progress, and highlight of major achievements
   b. Overview of how your research has been transformational to your field and discipline and in a critical area at the AEROSPACE SOCIETY OF INDIA
   c. Description of how your ORU has contributed to fostering collaborative research at the AEROSPACE SOCIETY OF INDIA
   d. New partnerships including industrial partnerships
   e. List of major awards received and/or fostered by the ORU
   f. List of major publications or conference papers by faculty and students (include publications in progress)

g. Technology transfer information such as patents, licensing
h. Evidence of national and/or international reputation
i. Evidence of public service and outreach and contribution at the state level

5. Teaching and education

a. Number of graduate and postdoctoral students who are paid by unit funds or participate because of a fellowship
b. Description of how your ORU integrates research and education (facilitates classroom instruction, graduate research training and/or community outreach) and contributes to undergraduate and graduate education
c. Direct or indirect contributions of ORU to graduate and undergraduate teaching programs of academic departments
d. List of doctoral dissertations (past or in-progress) that benefited from ORU resources

6. Benchmarking

a. Provide a brief description of similar ORUs nationally/internationally, and include any ranking or other evaluative information, if available, to indicate the relative position of the AEROSPACE SOCIETY OF INDIA ORU
b. If the ORU was subject to peer evaluation as part of a national/international competition, provide relative rankings or scores, if available

7. Financial Data

a. Awards and expenditure totals (including types of award)
b. Five-year budget comparison
c. Budget projections

8. Five-year goals

9. Review of ORU Director

a. Description of the director's leadership and effectiveness
b. Description of the director's strengths and weaknesses
c. Description of the director's accomplishments
d. Description of the director's goals

The Office of the Provost retains the right to request a performance review of any university-sanctioned ORU, at any point in the life of the ORU.

The report of the **review committee** to the dean (of the ORU director) and to the sanctioning authority of Research

1. A brief statement describing the ORU's research focus, mission, history, alignment with the mission of the AEROSPACE SOCIETY OF INDIA, and how the ORU fosters collaboration
2. Summary of the ORUs accomplishments and goals
3. Evaluation of the ORU with respect to research, teaching, and impact
4. Evaluation of space
5. Fiscal evaluation and outlook
6. Review of the ORU director
7. A summary of the recommendations of the ad hoc committee according to its charge

V) Review of Director of ORU Receiving Central Support (central matching funds)

The performance of each ORU director should be reviewed at least every five years. If a review of the ORU director is not mandated by a funding agency, it should be the responsibility of the chair and/or dean of the ORU director to

conduct the periodic review. For non-peer reviewed centers, a review of the director is included as a component of the overall five-year review of the center.

The review process and composition of the review team should be approved by the Office of Research prior to commencement of the review. If the ORU is to be continued, the decision whether to continue the appointment of the director is to be made by the dean(s) in conjunction with the to the sanctioning authority of Research , except when the ORU is funded by a single funding source that is competitively renewed every five years or less. Successful peer review of the director by the funding agency will suffice as the required five-year review of the director.

The committee should assess the abilities or skills of the director in guiding the unit according to the same criteria used in the review of the program itself. This review is in no way connected with merit and promotion review as a member of the faculty.

VI) ANNUAL report of ORU receiving central support (central matching funds)

At the end of each academic year, every ORU is required to submit a report to the responsible dean and to the sanctioning authority of Research. Typically, the information required for the annual report is provided through a copy of the annual report to the funding agency or to the stakeholders. In such instances where no annual report is required by the funding agency or stakeholders, a report to the dean and To the sanctioning authority of Research is still required, and should address the following points with any content variations approved by the To the sanctioning authority of Research :

1. Names of graduate students and postdoctoral researchers directly contributing to the unit who: (a) are on supported by the ORU, (b)

participate - through assistantships, fellowships, outreach, traineeships, or are otherwise involved in the ORUs work

2. Names of faculty members involved in the ORUs research or its activities
3. Extent of student and faculty participation from other campuses or universities
4. Numbers, titles, professional, technical, administrative, and clerical personnel employed
5. List of publications issued during the previous year by the ORU, including books, journal articles, and reports, showing author, title, and publication source
6. Annual funding from all sources, including income from the sale of publications, Intellectual Property and from other services
7. Annual expenditures from all sources of support funds, distinguishing use of funds for administrative support, direct research, and other specified use
8. Description and amount of space currently occupied, if different from the previous year's report
9. Summary of cost center or other such research service activities managed by the ORU
10. Any other information deemed relevant to the evaluation of a unit's effectiveness, including updated five-year projections of plans and resource requirements where feasible

VII) Guidelines for commitment of funding between primary units (deans, chairs; schools/colleges/departments) and ORUs to be maintained in accordance with the sanctioning authority of Research