

## PART-1 (Registration)

### 1. Details of applicant Sponsoring body (Trust / Society/Company):

Basic Details :			
<b>Name :</b> Inter University Centre for Astronomy and Astrophysics	<b>Address :</b> Ganeshkhind, S.P. Pune University Campus,	<b>State :</b> Maharashtra	<b>City :</b> Pune
Contact Details of the Authorities of the Institution :			
<b>Name of Vice Chancellor/Director :</b> Prof. R Srianand	<b>Email :</b> director@iucaa.in	<b>Mobile :</b> 9764751100	<b>Contact No. :</b> 02025604200
<b>Name of Nodal Officer of Institute :</b> Mr. Niranjan Abhyankar	<b>Email :</b> sao@iucaa.in	<b>Mobile :</b> 9423008507	<b>Contact No. :</b> 02025604128
Details of applicant Sponsoring body (Trust / Society/Company):			
<b>Name of the Sponsoring body :</b>	<b>Address of the Sponsoring body :</b>	<b>State :</b>	<b>City :</b>
Details of Secretary of Sponsoring body:			
<b>Name :</b> Prof. Raghunathan Srianand	<b>Designation :</b>	<b>Email :</b> director@iucaa.in	<b>Mobile :</b> 9764751100
<b>Contact No :</b> 020-25604200	<b>Fax :</b>	<b>Address :</b>	<b>Upload supporting document for Sponsoring Body:</b> Not Available

### 2. Details of the Deemed to be University:

<b>Name of the Deemed to be University :</b> Inter University Centre for Astronomy and Astrophysics	<b>Address &amp; location of the Deemed to be University :</b> Ganeshkhind, S.P. Pune University Campus,	
Name and details of the Institution/Institutions which will form the Deemed to be University :		
NAME OF INSTITUTE	HEAD EMAIL	TYPE
Inter University Centre for Astronomy and Astrophysics	director@iucaa.in	

## PART-2 (Submission of application)

### Details of the sponsoring body

	<h3>Summary of DPR</h3> <p>IUCAA was set up in the year 1988 to provide a centre of excellence within the Indian University sector for teaching, research and development in Astronomy &amp; Astrophysics (A&amp;A), as well as to promote nucleation and growth of active groups in this area in Universities. Besides conducting a vigorous research programme of its own, IUCAA is playing a crucial role in introducing the A&amp;A curriculum in Indian Universities and, through its Associateship programme and various focussed training programmes, in supporting both A&amp;A research at the highest level in Indian Universities as well as the creation of a pool of skilled human resources for the benefit of the nation, in particular for various national facilities such as GMRT, AstroSat, etc. IUCAA, through collaborations with various research institutions in the country and abroad, is involved in all the three astronomy mega-science programmes (i.e Thirty Metre Telescope, TMT; Square Kilometre Array, SKA; and Laser Interferometer Gravitational-Wave Observatory (LIGO)-India) and ISRO's space programmes such as AstroSat and ADITYA-L1. Over the past three decades, IUCAA has assumed academic leadership in A&amp;A, while catering to a large and</p>
--	--

diverse community of University-based researchers and has excelled in multiple niche domains of pure and applied multidisciplinary/interdisciplinary sciences. The broad demesnes of expertise include, Theoretical Physics, Astronomy & Astrophysics, Gravitation and Cosmology, Astronomical Instrumentation, high performance computing and other areas of contemporary interest. IUCAA has a vibrant PhD programme, as well as a postdoctoral fellowship programme, which attract the very best of the research scholars pan India. Recently IUCAA has started an M.Sc. programme on Physics with Astrophysics jointly with Savitribai Phule Pune University (SPPU). At present, IUCAA has not been conferred with the authority to award the Doctoral degrees, and the same are currently being awarded by Jawaharlal Nehru University (JNU).

In the backdrop of the evolving academic landscape in the country, initiated through the advent of the National Education Policy 2020 (NEP 2020) and the requirement to create a large pool of trained human resources to extract the best science from the mega-science projects, it is natural that the academic mandate of IUCAA should be expanded to include a more comprehensive and cognitive role that will, for instance, provide it with the authority to accord degrees and develop curriculum in the emerging fields. This Draft Project Report (DPR) outlines the possibility, wherein IUCAA, as a part of its expansion activity, aims to be recognised as a Deemed-To-Be-University (DTBU), while retaining its present structure along with administrative and scientific activities. The authority to grant degrees and, more importantly, frame the curriculum for new academic programmes at Post-Graduate and Ph.D. levels will be particularly important in this new academic landscape. By establishing the efficacy of the new programmes as implemented by the DTBU in its first few years, IUCAA will be in a unique position, through its natural connection to the University sector, to use these programmes as templates for A&A education and spread them to Universities across the country over the next decade. The formation of a DTBU will thus enable the mandate of IUCAA to be enhanced to the next level in national participation.

### Strategic Vision Plan for 15 years

IUCAA is poised to play a central role in generating trained human resources from Indian Universities, as potential developers and users of the proposed mega-science facilities, thus creating a large user pool to exploit the benefits from such large collaborative endeavours. The majority of projected users and beneficiaries will be from Indian Universities and IUCAA has a mandate to enable and sustain active participation of researchers from Indian Universities in these mega-science projects through various training programmes.

While academic members of IUCAA are engaged in formal teaching in various Universities, IUCAA in its early stages could not initiate degree awarding programs, due to limited human resources. Recently IUCAA has successfully initiated an ongoing M.Sc programme with SPPU. In order to have more flexibility, it is proposed that the academic expansion of IUCAA includes the possibility to have a degree granting structure. The proposed structure as detailed subsequently, envisages IUCAA, in addition to continuing its mandated tasks and conducting Ph.D. programmes, as providing specialized M.Sc. programmes in line with its proven expertise and research profile. In addition to the basic courses, IUCAA will offer specialized modular courses (with appropriate credits) that can be taken by students in this setup as well as in other Universities. To accomplish the above-mentioned goals (namely continuing to perform the core mandate of IUCAA and participating in resource creation activities through teaching endeavors) it is important that the proposed DTBU is formed as an extended part of IUCAA, while preserving the identity and autonomy of IUCAA.

**Report (DPR) containing its fifteen year detailed Strategic Vision Plan and a five year rolling implementation plan viz. Academic Plan, Faculty Recruitment Plan, Students Admission Plan, Research Plan, Networking Plan, Infrastructure development Plan, Finance Plan, Administrative Plan, Governance Plan, etc, with clear annual milestones and action plans on how the new Institution Deemed to be University is to be set up, with identifiable outputs and outcomes :**

The faculty members from IUCAA will carry out the teaching responsibilities. To cope up with the additional teaching/laboratory work IUCAA will require a few additional posts and financial support to establish specific laboratories, which would be requested by IUCAA to UGC. Considering the involvement in both the mandated tasks as well as the significant contribution in the proposed DTBU, it would be rational to extend the tenure of such staff so as to be commensurate with a similar structure as is prevailing in the Central Universities.

### Student Admission Plan

The proposed DTBU will offer both Post-Graduate as well as Doctoral programmes. The Post-Graduate programmes will cover the conventional Master's Program. The tenure of the programme leading to a Master's Degree would be 2 years, while the Doctoral programme leading to a Ph.D. degree would be for 5 years. The Integrated M.Sc.-Ph.D. dual program would be for a duration of 7 years. Admissions to all the Post-Graduate programmes will be through an annual all-India written entrance test conducted by IUCAA, namely the IUCAA National Admission Test (INAT). The initial intake for the individual Master's programmes would be 10 each. In addition, the Department of Astrophysics will initially start with 5 students for the Integrated M.Sc.-Ph.D. in Physics with Astrophysics. Admissions to the Ph.D. programmes would typically be conducted in two sessions, and the eligibility criteria would be governed by the rules / regulations / procedures / norms based on the guidelines from the University Grants Commission. Ph.D programmes will be offered in the subject areas as mentioned in the attached Academic Plan. Information will be made available through advertisements brought out periodically via electronic / print media. Typically, 4-year-B.Sc / Master's students qualified in CSIR-UGC NET / GATE / JEST / DST INSPIRE or equivalent national entrance examinations are eligible to apply for the programmes. IUCAA will continue its practice of selecting Ph.D. candidates through a rigorous screening and testing process, following UGC guidelines. The number of Ph.D. candidates clearing this selection and joining IUCAA has typically been about 8-9 per year; under the programmes to be offered by the proposed DTBU, this number will increase to 20.

### Research Plan

The main objectives of IUCAA are to provide a centre of excellence within the University sector for teaching, research and development in A&A, as well as to promote nucleation and growth of active groups in this area in the Universities. IUCAA provides researchers from University departments access to state-of-the art astronomical instrumentation, theoretical know-how, well-equipped laboratories, data centres and high-quality computing facilities. Members of IUCAA are actively engaged in research in all areas of A&A including Instrumentation, Multi-Wavelength Ground and Space-Based Observations and Data Analysis, Quantum Metrology and Precision Measurements, Solar Physics, Extragalactic Astronomy, High-Energy Astrophysics, Gravitational Wave Astrophysics, Theoretical and Computational Astrophysics, Large-Scale Structure, Gravitation and Cosmology. IUCAA is a participant in major national and international projects such as the currently operating 10-m Southern African Large Telescope (SALT), the multi-wavelength AstroSat mission, Aditya-L1 mission; the next generation optical observatory - the Thirty Meter Telescope (TMT); the planned advanced gravitational-wave observatory - the LIGO-India; the Vera Rubin Observatory (Rubin LSST); the Square Kilometre Array (SKA); the National Quantum Mission (NQM). IUCAA has a high-performance computational facility and an excellent library.

Campus Information & Communication Technology Plan?The administrative office of the DTBU will be housed in IUCAA's campus.

### Infrastructure Development Plan

IUCAA is fully equipped with classrooms, cafeteria, playgrounds, transit accommodation, common room for the students, library infrastructure, etc. IUCAA is already equipped with Astrophysics laboratories that are regularly being used for the 2nd year SPPU-IUCAA M.Sc. (Physics with Astrophysics) students. Basic physics laboratories are planned to be created within the existing infrastructure available at IUCAA. For student accommodation, arrangements in the immediate vicinity shall be made on rental basis as and when required till permanent hostels are built by IUCAA with the financial support from the UGC. IUCAA will also request UGC for funds to set up specialised labs for the advanced courses.

### Finance Plan

IUCAA is fully funded by the Ministry of Education through UGC. A letter of commitment from the nodal ministry to continue financial support to IUCAA even after declaration as a DTBU shall be duly furnished by UGC. To initiate and sustain the academic programmes, the present budget for IUCAA will have to be augmented. IUCAA will duly submit the requirements. The budget for the administrative work at the DTBU will be allocated separately by the UGC.

### Administrative Plan

Existing administrative resource categories will continue for the DTBU under the “distinct” category. The administrative structure would be revised as per the nomenclature and level of the proposed DTBU. The Director, IUCAA will be the ex-officio Vice-Chancellor of the DTBU. The existing Governing Board of IUCAA will additionally carry out the responsibility of the Executive Council of the DTBU. The existing Finance Committee of IUCAA will additionally carry out the responsibilities of the Finance Committee of the DTBU. The constitution of the Academic Council and Board of Studies will be in accordance with UGC guidelines. Additional functional unit, such as Registrar, will be set up for University Administration under the existing extension plan.

### Governance Plan

The governance structure would be designed as per the nomenclature and level of the authority of the DTBU under the “distinct” category.

**Details of the sponsoring body:**

Single

**Please furnish details of the exclusive society/Trust/ Company formed in the name of the proposed Deemed to be University.**

**Upload copy of Registration and List of members**

**Whether the applicant sponsoring body has been established exclusively for running educational institutions? (Upload the Registration certificate as well as**

Registered Deed which specifies that the sponsoring body is exclusively for running educational activities and no other activities are being carried out or shall be carried out in future under it)	Yes
Provide an undertaking that the sponsoring body shall make available the necessary infrastructure for operating the institution deemed to be University without any rental or other such charges.	Not Available
Aims and objectives of the sponsoring body.	<a href="#">View Document</a>

Name	Address
------	---------

#### Details of Secretary of Sponsoring body:

Name: Prof. Raghunathan Srianand	Designation: Director	Email: director@iucaa.in	Mobile: 9764751100	Contact No.: 020-25604200
Details of other members of sponsoring body				<a href="#">View Document</a>
Upload detailed DPR				<a href="#">View Document</a>
In the case of institutions that are fully or partially funded by the state or Central Government, letter of commitment from the respective Government to continue financial support to the institution even after declaration of the institution as Deemed to be University				<a href="#">View Document</a>
Upload List of the programmes devoted to teaching or research in unique disciplines (Please refer to clause 2.12 of existing UGC regulations)				<a href="#">View Document</a>
Upload the name of the programmes along with the justification as to how these programmes fit into the Distinct category				<a href="#">View Document</a>
Whether syllabi of the programmes devoted to teaching or research in unique disciplines have been prepared? Yes				<a href="#">View Document</a>
Upload the Memorandum of Association (MoA)				<a href="#">View Document</a>

#### Undertaking:

Items	View
Upload the notarized legal undertaking.	<a href="#">View Document</a>

#### Department Details:

Department	Year of Starting	#. Programme	#. Student in Department	#. Teacher in Department	#. Laboratories in Department
Department of Astrophysics	2024	3	25	18	2
Department of Gravitational Science	2024	2	20	5	1

#### Programme Details:

Department	#. Programme	#. Year of Starting	#. Level
Department of Astrophysics	M. Sc (Physics with Astrophysics)	2024	PG
Department of Astrophysics	Integrated M.Sc.-PhD (Physics with Astrophysics)	2024	Ph.D.
Department of Astrophysics	Ph.D (Physics with Astrophysics)	2024	Ph.D.
Department of Gravitational Science	Ph.D (Physics with Gravitational Science)	2026	Ph.D.
Department of Gravitational Science	M. Sc (Physics with Computational Astrophysics)	2026	PG

#### Department-wise list of faculty:-

Uploaded File
<a href="#">View Document</a>

#### Department-wise details of students:

Year	Department	Name of Programme	Level	Student Intake	Actual No of Student Enrolled
2024	Department of Astrophysics	M. Sc (Physics with Astrophysics)	PG	10	0
2024	Department of Astrophysics	Integrated M.Sc.-PhD (Physics with Astrophysics)	Ph.D.	5	0
2024	Department of Astrophysics	Ph.D (Physics with Astrophysics)	Ph.D.	10	0
2026	Department of Gravitational Science	Ph.D (Physics)	Ph.D.	10	0

		with Gravitational Science)			
2026	Department of Gravitational Science	M. Sc (Physics with Computational Astrophysics)	PG	10	0

#### Details of academic & physical infrastructure:

<b>Title of the land :</b> Government leased land for 99 years	<b>Areas of total land available In acres:</b> 19.11
<b>Areas of total land available In Sq. Meters:</b> 77367.06	<b>Land Type:</b> Lease hold
Upload land document <a href="#">↓ View Document</a>	<b>Administrative building (Total Built-up area (in Sq. Meters)) :</b> 630
<b>Academic building (Total Built-up area (in Sq. Meters)) :</b> 10798.11	<b>Departmental Library and Central Library (Total Built-up area (in Sq. Meters)) :</b> 777.5
<b>Others facilities (Total Built-up area (in Sq. Meters)) :</b> 13412.96	<b>Number of Lecture halls :</b> 3
<b>Number of Hostels (Boys &amp; Girls separately) with students accommodation :</b> 1	<b>Other common and recreational facilities :</b> <a href="#">↓ View Document</a>

Seating Capacity	Land Area(in Sq. Meters)	Location
500	1298	IUCAA campus, PUNE