

MEMORANDUM OF UNDERSTANDING

between

**INDIAN INSTITUTE OF TECHNOLOGY
KHARAGPUR, INDIA**

and

**INDIAN ASSOCIATION FOR THE CULTIVATION OF
SCIENCE, KOLKATA, INDIA**

Preamble

Indian Institute of Technology Kharagpur (IITKGP), founded in 1951, is the first of the IITs to be established and is an institute of National Importance as recognized by the Government of India. Apart from excellence in undergraduate and postgraduate programmes, IITKGP has a long history in cutting edge research and development. Considerable amount of interdisciplinary research is currently underway involving various Departments, Centers and Schools in IITKGP.

The Indian Association for the Cultivation of Science (IACS), founded in 1876 is the oldest research institute of its kind in India. IACS is an autonomous body funded by the Department of Science and Technology (DST) of the government of India and by the government of West Bengal. This was the place where Sir C V Raman did his monumental work, on Physical Optics leading to the discovery of the celebrated Raman Effect which won for him and India the first Nobel Prize in Science. The institute is presently devoted to the pursuit of fundamental research in the frontier areas including Biology, Chemistry, Energy, Materials, Physics, and Polymer.

IITKGP and IACS have agreed for institutional collaboration in education and research. The primary objective is to promote interaction and collaboration between faculty and students of the two institutions to carry out joint academic and research programmes, joint supervision of doctoral students on a reciprocal basis, and collaborative research projects. This document presents a general framework for such a relationship. It also includes some specifically identified areas of cooperation, which may be updated from time to time.

Coordination

Dr. Rupa Mukhopadhyay, Head, Department of Biological Chemistry shall be the Coordinator from IACS and Dr. Soumya De, School of Bioscience, shall be the Coordinator from IITKGP. The participants and Coordinators may change from time to time as decided by appropriate authority of the respective institutions.

Scope of Cooperation

The following areas of cooperation have been identified under this agreement.

- (i) Coordinated graduate degree programme: Joint PhD/Masters programmes may be explored and formulated, possibly in association with other reputed academic, research or industrial organisations. A detailed document related to such programmes will be required and approved by the competent authorities of both the institutions, before implementation.
- (ii) Joint supervision of PhD: In order to promote collaboration, one faculty member from IITKGP and one from IACS, based on their common research interest, can supervise a PhD student.
- (iii) Joint research projects: The two parties will explore opportunities of undertaking joint research projects and may seek research funding from external funding agencies. Each such research proposal shall require approval of the respective institutions.
- (iv) Faculty exchange programme: The two parties will explore opportunities for interaction among members of the faculty as well as creating Visiting Faculty positions. The total duration of visits from each side is expected to be comparable. Each such visit shall require approval of the respective institutions.

The areas of cooperation may be revised by mutual consent. However, specific programmes may require separate agreements detailed out and documented as annexures to this MoU.

Intellectual Property

Each institution will adhere to the intellectual laws of India. Intellectual property developed during the visit of an exchange student/researcher/faculty will be governed by the rules of the host institute unless otherwise specified. The two institutions shall jointly own results of clearly defined collaborative projects and exchange programmes. This joint ownership also entitles each party to explore commercialization. However, transfer of jointly developed technology and associated sharing of revenue shall be governed by a separate agreement.

Furthermore, if one institution receives any information from the partner under a clearly defined non-disclosure agreement, necessary and reasonable care will be taken to protect the intellectual property received.

Financing

The two institutions will consider allocating seed money to initiate this partnership. In addition they will also approach their respective Ministries in the Central Government. Special attention will be given to obtain funded projects from industry as well as from alumni to support such collaborations.

Students admitted to this programme under this MoU shall pay fees as per IITKGP rules. IACS will make arrangements for local living including accommodation, food, at reasonable costs to students. Travel costs for faculty shall be borne by the home institution. However, various external funding sources may be explored either independently or jointly.

Legal Status

This document is a statement of intent to foster genuine and mutually beneficial cooperation and is not legally binding on both the parties. Any disputes shall be resolved through mutual discussion.

Validity

This agreement is valid for an initial period of ten years and becomes effective from the date it is signed by the partners. The partnership period may be extended by mutual consent. In case one partner wishes to terminate the MoU, intimation will have to be sent at least six months in advance. However, specific commitments made prior to such intimation shall be honored by both the partners.



Prof. Santanu Bhattacharya
Director
Indian Association for the Cultivation of
Science
Kolkata, India

Date : 22/06/2016



Prof. Partha Pratim Chakrabarti
Director
Indian Institute of Technology of
Kharagpur
Kharagpur, India

Date : 22nd June 2016

**ANNEXURE
TO
MEMORANDUM OF UNDERSTANDING**

between

**INDIAN INSTITUTE OF TECHNOLOGY
KHARAGPUR, INDIA**

and

**INDIAN ASSOCIATION FOR THE CULTIVATION OF
SCIENCE, KOLKATA, INDIA**

PARTIES

1. **INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR, WEST MIDNAPORE,
PIN: 721302**
2. **INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE, KOLKATA,
PIN: 700032**

PURPOSE

IACS and IITKGP are linked by common interests. Together they seek to develop and expand academic collaborations and exchanges in fields of mutual interest and expertise. The activities undertaken pursuant to this Memorandum of Understanding (MOU) reflect a spirit of cooperation and reciprocity intended to be of mutual benefit to both parties and contribute to an enduring institutional linkage between the Parties.

GOALS AND FORMS OF COOPERATION

- Integrated M.Sc. - Ph.D. programme shall be initiated following the relevant institutional guidelines of IITKGP and IACS. The curriculum and the syllabus are to be approved by the respective academic bodies of both the institutions.
- In the first academic year, students will visit the campuses in the order IACS Kolkata and then IIT Kharagpur. They will spend one semester (about six months) at each institute.
- From 3rd semester onwards, one half of the students will stay at IIT Kharagpur and the other half at IACS Kolkata. The criteria of distribution of students between the two institutes will be based on their academic performance and preference.
- Students staying at a particular institute in the 3rd semester will continue to carry out their Master's project in the 4th semester at the same Institute.
- There will be compulsory core courses and elective courses in the curriculum. The specific elective courses will be offered from a common list.

- From 3rd Semester onwards, the students staying in a particular institute will choose the electives from a list offered by the same institute. If students opt for the same elective in both the institutes, the course will run in parallel in both the institutes and evaluation will be done jointly.
- Representative subject areas to be addressed by each institute are indicated below. It is not exhaustive– it simply shows the primary focus of each institute. Detailed work will have to be done by each institute to identify the course outlines and associated credits. IIT Kharagpur: Primary focus: Molecular and Cell Biology. IACS Kolkata: Primary focus: Chemical Biology
- One faculty member from IITKGP and one from IACS, based on their common research interest, will jointly supervise a student who will decide to continue for his/her PhD after 2 years.
- All students will be registered in the School of Bioscience, IITKGP.
The Doctoral scrutiny committee for each PhD student shall comprise the following members:
Head, School of Bioscience as the Chairman
Both supervisors
Three faculty members with at least one member from each institute and the third member should be from other department of IITKGP.
- The examination pattern, schedule and grading to be governed by the rules and regulations of IITKGP.
- Supplementary examination at M. Sc. level to be conducted at the respective institute.
- Students are required to clear all 1st and 2nd semester credits before registering for the 3rd semester.

FINANCIAL SUPPORT

- Admitted students will be entitled for a scholarship for the first two years, which will be provided by IACS.
- On successful completion of M. Sc. course research fellowships will be provided by IIT KGP.
- Students admitted under this programme shall pay required fees as per existing rules and regulations of IITKGP (Tuition fees, Registration Fees etc)

ELIGIBILITY

- B.Sc. or B. Tech. or B.E. in any branch of life science or B. Sc. in Chemistry
- At least 55% aggregate marks, without rounding off, (taking into account all subjects, including Languages and Subsidiaries, all years combined) for Un-Reserved/OBC Category Candidates and at least 50% aggregate marks, without rounding off, (taking into account all subjects, including Languages and Subsidiaries, all years combined) for SC/ST and PD Category Candidates in the qualifying degree. Admission for B.Tech/B.E. Candidates through JAM will be considered case by case depending on the recommendation of the department.
- IIT Kharagpur does not consider degrees obtained from Open Universities / Correspondence for admission to Integrated M.Sc.-Ph.D Programme.
- First division at 10 and 10+2 level

ADMISSION

The selection of students will be done in two stages. There will be two routes of entry for Stage-1:

- Joint Admission Test for M.Sc. (JAM) in Biosciences, Biotechnology or Chemistry.

AND / OR

- Entrance Test conducted by IACS.

Stage-2:

A cut-off mark for the above mentioned examinations will be decided by a joint admission board to be constituted by the competent authorities for selecting students to appear for interview. Final selection will be done based on the overall performance of the student.

CONTACT HOURS

During the first 2 years, the programme will have at least 800 contact hours at the institutes (200 contact hours in each semester) to cover the basic curriculum for the M. Sc.

INTENDED BATCH SIZE: 12 (Maximum)

In the beginning a small number is targeted so that talented students can be selected who will appreciate the programme. This is also likely to lead to good placement and that, in turn, would help build the brand of the programme in attracting good students in subsequent years. Moreover, a small number would keep the added load on institute manpower and infrastructure to a manageable level. The number of students in future batches can be decided later based on the experience of conducting the programme.

ACCOMMODATION

IACS will make arrangements for local living including accommodation, food, at reasonable costs to students during their stay at Kolkata and the students will be accommodated in hostels during their stay at IIT Kharagpur.

PLACEMENT

The students will be eligible to participate in the campus placement process at each institute during its regular placement time. A policy will be framed so that fairness among students gets ensured in placement opportunities. As the students may be on a different institute when the campus placement is scheduled at an institute, institutes will facilitate necessary support and flexibility to allow students participate in the placement

process. However, this is unlikely to be any significant bottleneck as the travel time between any two institutes is only about a couple of hours.

REGISTRATION

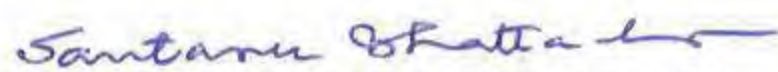
- All admissions/registration will be done at IITKGP through School of Bioscience.
- Admission fee and semester registration fees are to be deposited in favour of IIT Kharagpur.
- All students of the Integrated MSc-PhD programme are required to register for the prescribed subjects at the commencement of each Semester, on the day announced for such registration at the organizing institute.
- A student who is unable to register on the date fixed for registration can be permitted to register as per IITKGP rules.
- Only those students will be permitted to register who have (a) made all required advance payments of Institute tuition fee (b) met all other academic requirements.

GENERAL GUIDELINES

- The final degree will be awarded by IITKGP considering the fact that IACS is not a degree awarding institute. However, the final degree certificate will mention the involvement of both the institutes in the proposed programme.
- The Grade Card to be issued by IIT Kharagpur as per their format.
- A student admitted to the Integrated M.Sc.-Ph.D. programme can either leave with the M.Sc. degree after the fourth semester or join the Ph.D. programme if he/she satisfies the following criteria
- The student must have secured a minimum CGPA of 8 at the end of the **third** semester clearing the prescribed credit requirements in order to continue for PhD.
- The student must express, in writing, his (or her) willingness to continue with Ph.D before the end of 3rd Semester.
- A successful Integrated M.Sc.-Ph.D. student will be awarded two degrees (M.Sc. and Ph.D.) simultaneously. Hence a student shifting to the Ph.D. programme will not be

listed as a recipient of M.Sc. degree in the following Convocation. However, each such student will be given the Final Grade Card of the 4-semester M.Sc. degree **and will be considered for all Institute medals. The provisional certificate for completion of M.Sc. programme will be issued to the successful candidates after the PhD registration.** If, after joining, a student discontinues the Ph.D. programme, then the degree of M.Sc. will be awarded in the subsequent Convocation. In that case the student will be given Provisional Certificate at the time of discontinuing the programme and the student will be admitted to the Degree in the next Convocation. All the rules existing for the Ph.D. programme with regard to admission, enrollment, comprehensive examination, registration, and award of degree, etc. are applicable to these students. Every Integrated M.Sc.-PhD. student admitted to the Ph.D. programme will be treated as Institute category student and will receive assistantship as per the MHRD norms prevailing at the time of admission to the Ph.D. programme.

- Reservation as per MHRD rules.



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