

**Application form for BPSDP on Biotechnology–2020
at NIT Rourkela (24– 25,January 2020)**

1. Full Name: (BLOCK) :
2. Class :
3. School / Organization :
4. Mailing Address :
5. Contact details :
Mobile no: (Preferably WhatsApp) :
Mobile no: (Alternate) :
Email :
6. Permanent Address :
7. Sex : Male / Female /
Transgender
8. Date of Birth & Age :
9. Marks secured at 10th class :
10. Whether participated any training :
programme previously Yes / No
If YES, furnish details: :

This is certified that all the facts stated above are true and correct to the best of my knowledge.

Date: -----

Signature of the participant: -----

Recommendation from the School: YES / NO

Signature of the Class Teacher: -----

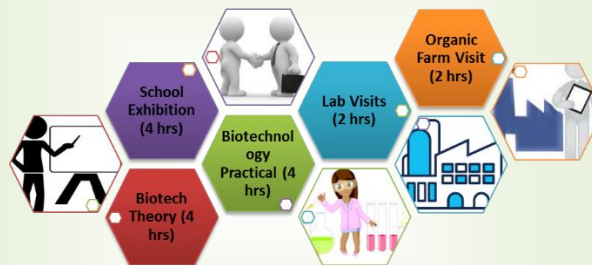
Signature of the Principal: -----

The official language for the programme will be English for all purposes. All correspondence will be entertained only in English. You can also visit www.nitrkl.ac.in for downloading the registration form and other information.

STUDENTCOORDINATORS:

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PROGRAM OVERVIEW



ORGANIZING COMMITTEE MEMBERS

Prof. Amit Biswas, Assistant Professor
Prof. Angana Sarkar, Assistant Professor
Prof. Anju R. Babu, Assistant Professor
Prof. Bibhukalyan Prasad Nayak, Assistant Professor
Prof. Devendra Verma, Assistant Professor
Prof. Kasturi Datta, Assistant Professor
Prof. Krishna Pramanik, Professor
Prof. Kunal Pal, Associate Professor,
Prof. Mukesh Gupta, Associate Professor,
Prof. Nandini Sarkar, Assistant Professor
Prof. Nivedita Patra, Assistant Professor
Prof. Sirsendu Sekhar Ray, Assistant Professor
Prof. Subhankar Paul, Associate Professor

CHAIRPERSON:

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PROGRAMCOORDINATORS:

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The Biotech Research Society, India

Sponsored

**BIOTECHNOLOGY POPULARIZATION AND
SKILL DEVELOPMENT PROGRAMME**

[BPSDP -2020]

24 –25JANUARY 2020

PATRON

**PROF. ANIMESH BISWAS
DIRECTOR, NIT ROURKELA**



CHAIRPERSON

**Dr. A. THIRUGNANAM
Head, BM Dept, NIT Rourkela**

COORDINATORS

**Dr. P. BALASUBRAMANIAN
Dr. J. SIVARAMAN**

**Department of Biotechnology and
Medical Engineering
National Institute of Technology
Rourkela,
Odisha, India – 769 008**

ABOUT THE INSTITUTION

National Institute of Technology Rourkela (NIT Rourkela) is an institute of national importance created under the act of parliament. Times World Rankings has figured NIT Rourkela in the list of 801-1000 universities in the world for the year 2020. NIT Rourkela has been placed within 601-800 in Times World University rankings for higher education under "Engineering and Technology" category. BRICS 2019 has figured NIT Rourkela in the place of 126th among top universities in Brazil, Russia, India, China and South Africa. Times Higher Education Asia University Rankings also figured NIT Rourkela in the place of 126th among Asian universities. NIRF ranking 2019 has figured NIT Rourkela at 16th position in *Engineering* category and 38th position in *Overall* category.

NIT Rourkela provides quality education in a diverse and multi-cultural environment. The mission of the institute is to become an internationally acclaimed institution of higher learning that will serve as a source of knowledge and expertise for the society and be a preferred destination for undergraduate and graduate studies. The institute is offering Ph.D. and M.Tech. Research programmes in 21 branches of Engineering, Management and Science. The institute research centers are engaged in consultancy, research and developmental activities of several bodies such as DST, DBT, DAE, CSIR, DRDO, BARC, ISRO and other private industries.

ABOUT THE DEPARTMENT

Department of Biotechnology and Medical (BM) Engineering was started in August 2007 and, currently has 16 faculties each having Ph.D. degree from reputed institutions in India and Abroad. All faculties are actively engaged in Research activities and, each of them has at least one sponsored research project per faculty from governmental agencies such as DST, DBT, CSIR, ICMR etc. The department has also been successful in receiving research assistance from DBT-Program Supports (~3.4 Cr), MHRD-FIST (~2.5 Cr.) and MHRD-TEQIP (~5.0 Cr.). These financial supports from different governmental agencies has buttressed the research infrastructure developed from the Institutional Plan grant.

The department is also having well-developed laboratories for Cell and Molecular Engineering, Gene Manipulation, Protein Engineering, Structural Biology and Nanomedicine, Computational Biology, Bioinformatics, Biomicrofluidics, Agricultural and Environmental Biotechnology, Bioprocess Engineering, Rehabilitation and Regenerative Medicine, Stem Cell Culture, Smart Materials, Scaffold Fabrication, Biomaterials and Tissue Engineering, Biomechanics and Biotransport, Anatomy and Physiology and, Medical Electronics and Instrumentation, Laboratory. Recently, the department has also developed a 'Clean Room Facility'.

Using such facilities, our department is able to perform quality research that is published in Peer-reviewed international Journals. On an average, our department publishes more than 50 SCI-indexed publications per year and have filed five patents in last five years.

ABOUT THE GENESYS

GENESYS is a student club of BM Dept. aimed to sensitize on the significance of biotechnology / life science among students. GENESYS organizes various club activities like school exhibitions, bio-quiz and expert talks.

ABOUT THE BRSI

BRSI is a non-profit, scientific, professional society dedicated to promote excellence and competence in the field of biotechnology for the benefit of mankind.

- ✓ To promote research and development in biotechnology in India
- ✓ To enable interaction between academic institutes and biotech industries, help them in resolving problems, as well make them aware of latest developments in biotech sector
- ✓ To provide training in biotechnology, organize lectures, seminars and symposia on scientific programs and societal missions

ABOUT THE PROGRAM

As appeared in Chemical Weekly of 21st Nov' 2000, "*All hopes of human being lie in the solutions likely to be provided by Biotechnology to our problems and needs in the coming years. Biotechnology will bring about unprecedented changes in the technological and industrial life of the 21st century. Its impact will almost certainly be greater than that of the information technology revolution. With these expectations and corresponding efforts of rest of the world, India has to think more seriously for the development of Biotechnology sector*".

Engineering principles are convincing. Physics and Chemistry basis of technology is considered straightforward and reproducible, but Life Science / Biotechnology is less understood and is also less trusted. The early stage of life science / Biotechnology industry has experienced more problems in repetition of performance; forecasting and that impact have not been fully forgotten. Now with biotechnology developments, uncertainties have considerably reduced.

Keeping this in mind, an initiative has been taken to motivate school and college children to pursue career in biotechnology based entrepreneurial skill development. The aim is to provide basic needs of the communities while safeguarding the needs of future generations of youth.

The BPSDP on *Biotechnology* is designed to develop entrepreneurial motivation and competencies to initiate and advance in setting up an enterprise. The course content will aim to train the prospective entrepreneurs on both fundamental and advanced level industrial biotechnology and business skills by focusing on the following topics, but not limited to;

- Covers various aspects of biotechnology and bio-engineering
- Focuses on the latest developments in the bioprocess field, including biofertilizers, biofuel technologies
- Biotechnological Innovations in Agriculture, Health and Industry shaping our present and future

The pedagogical methods envisaged to adopt are as follows:

- ✓ Hands on practice sessions
- ✓ Interaction with experts in biotechnological skill development
- ✓ Lab visits to industry and exhibitions
- ✓ Successful case studies on biotechnology entrepreneurs
- ✓ Product development in biotechnology sector

HOW TO APPLY

A total number of fifty potential applicants will participate in BPSDP. Interested candidates may send their application in prescribed format, containing the complete biodata of the candidate, a short write-up about the program's utility for the candidate. **No course fees will be collected from the participants for availing this BPSDP course.**

TARGET GROUP

The course is open to secondary / higher secondary students from the schools located in and around Rourkela.

MODE OF SELECTION

The screening committee from the corresponding schools will make selection of the participants for the BPSDP 2020 based on the eligibility and interest. Upon recommendation by the class teacher and school principal, the applications will be screened at the department and the selected candidates list will be communicated to the schools.

TRAVEL AND ALLOWANCES

The participants will have to make their own arrangements for travel. However, high tea / snacks and working lunch will be provided at the venue during the programme.