

Recruitment Advertisement & Job Description for Project Staff
BioNEST-BHU Bio Incubation Center
Banaras Hindu University, Varanasi – 221005

Job description for the recruitment of project staff

Positions details, qualification & experience for the manpower sanctioned in the research project supported by the Centre for Cellular and Molecular Platforms (C-CAMP) under the AMR in the Environment Programme funded by the DHSC, UK Government.

The positions are purely temporary and co-terminus with the project.

1. Research Associate : Molecular Biology / AMR Specialist @ INR 60,000/-pm

Essential Qualification

- Ph.D. in Microbiology / Biotechnology / Molecular Biology / Life Sciences/ Environmental Science / Analytical Chemistry or related disciplines.

Desirable Qualification

- Experience in meta-omics approaches (metagenomics, transcriptomics, proteomics).
- Hands-on experience in DNA/RNA extraction, qPCR, RT-PCR, and molecular diagnostics.
- Experience in metagenomic analysis and antibiotic resistance gene (ARG) profiling.
- Hands-on experience with HRMS / LC-MS / GC-MS for detection of emerging contaminants.
- Knowledge of environmental risk assessment and ecotoxicology studies.

Job Description

- Collection and monitoring of wastewater samples from study sites.
- Extraction and quantification of environmental DNA/RNA (eDNA/eRNA) from wastewater samples.
- Shotgun sequencing, bioinformatic analysis, and primer design for microbial and ARG targets.
- Quantification of bacterial load and ARG abundance using qPCR.
- Coordination of high-throughput sequencing and bioinformatics workflows.
- Microbiome and resistome profiling of wastewater samples.
- Analysis of physicochemical parameters such as pH, organic load, microbial counts, and pollutants.
- Detection and quantification of emerging contaminants using HRMS-based methods.
- Conduct toxicity and environmental safety studies.
- Perform algal growth inhibition assays following OECD Guideline 201.
- Preparation of manuscripts, project reports, and scientific documentation.

Maximum Age Limit: 45 Years

No of Post: 01





NOTE: Total Number of RA-positions varies between 1 to 2. One of the position may be upgraded to the project scientist (qualification remains same as RA) depending on the approval of the funding agency.

2. Research Associate : Nanomaterials / CNT Synthesis Specialist @ INR 60,000/-pm

Essential Qualification

- Ph.D. in Nanotechnology / Physic/Materials Science / Chemistry or related areas

Desirable Qualification

- Demonstrated experience in nanomaterial synthesis and functionalization.
- Experience in carbon nanotube (CNT) functionalization and magnetic nanoparticle synthesis.
- Hands-on experience with SEM, TEM, FTIR, XRD, BET or other nanomaterial characterization techniques.
- Research publications in nanomaterials for environmental or biomedical applications.

Job Description

- Collection and monitoring of wastewater samples from study sites.
- Synthesis and functionalization of carbon nanotubes (CNTs).
- Surface modification and chemical derivatization of CNTs.
- Characterization of synthesized nanomaterials using advanced analytical techniques.
- Optimization of CNT-based systems for adsorption and removal of microbial contaminants.
- Coordination with project collaborators for nanomaterial development.
- Analysis of physicochemical parameters such as pH, organic load, microbial counts, and pollutants.
- Detection and quantification of emerging contaminants using HRMS-based methods.
- Conduct toxicity and environmental safety studies.
- Perform algal growth inhibition assays following OECD Guideline 201.
- Preparation of manuscripts, project reports, and scientific documentation.

Maximum Age Limit: 45 Years

No of Post: 02

NOTE: Total Number of RA-positions varies between 1 to 2. One of the position may be upgraded to the project scientist (qualification remains same as RA) depending on the approval of the funding agency.

3. Project Associate @ INR 30,000/-pm

Essential Qualification

- Master's degree in Microbiology / Biotechnology / Environmental Science / Life Sciences / Physic/Chemistry or allied areas.

Desirable Qualification

A handwritten signature in blue ink is written over a blue rectangular stamp that contains the letters "NSMD".

- Experience in microbiology, molecular biology, environmental science nanomaterial-related research or related areas.
- Knowledge of microbial culture techniques, PCR-based methods, and environmental sampling.

Job Description

- Collection and processing of wastewater samples from field sites.
- CNT Synthesis and Characterization work
- Microbial enumeration using standard plate count (CFU method).
- Assistance in CNT adsorption and treatment experiments.
- DNA extraction and assistance in PCR/qPCR experiments.
- Maintenance of laboratory records, experimental data, and sample inventories.

Maximum Age Limit: 40Years

No of Post: 02

4. Lab / Field Assistant @ INR 15,000/-pm

Essential Qualification

- 10+2 with Science, **OR**
- Diploma in Medical Laboratory Technology / Laboratory Techniques, **OR**
- Bachelor's degree in Life Sciences / Microbiology / Biotechnology / Environmental Science

Desirable Qualification

- Experience in sample collection, culture media preparation, and laboratory maintenance.

Job Description

- Preparation of culture media, reagents, and laboratory buffers.
- Assistance in sample filtration, centrifugation, and storage.
- Maintenance and routine operation of laboratory instruments and consumables.
- Assistance in field sampling and experimental trials.
- Support in documentation, inventory management, and laboratory waste disposal.

Candidates with research experience in antimicrobial resistance (AMR), environmental microbiology, wastewater treatment technologies, nanomaterials for environmental applications, metagenomics, or environmental monitoring will be given preference.

Maximum Age Limit: 40Years

No of Post: 01

General Terms and Conditions

1. The above positions are purely temporary and co-terminus with the project.
2. The initial appointment will be for one year, extendable based on performance and project requirements.
3. The selected candidates may be required to travel for field sampling and project-related work.

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4. No TA/DA will be provided for attending the interview.
5. The decision of the selection committee will be final and binding.

Application Procedure

Interested candidates should send their detailed CV along with self-attested copies of educational certificates and research publications to Dr. Durgesh Narain Singh, Principal Investigator at sobionest@bhu.ac.in and bionestbhu@bhu.ac.in within two weeks from the date of the advertisement

The subject line of the email should clearly mention: “**Application for the post of RA/PA/Lab Assistant under AMR Project**”

Only shortlisted candidates will be informed by email for the interview (offline/online mode).

Please send the hard copy to

Principal Investigator

Dr. Durgesh Narain Singh,
Chief Scientific Officer,
BioNEST-BHU, Bioincubation Center
4th Floor, CDC Building, Banaras Hindu University
Varanasi – 221005, India



(Dr. Durgesh Narain Singh)

Dr. Durgesh Narain Singh
Principal Investigator
(BioNEST/GAM-2/001)
BioNEST-BHU
4th Floor Central Discovery Centre
BanarasHindu University
Varanasi-221005



(Prof. Rajeshwar Prasad Sinha)

समन्वयक /Coordinator
बायोनेस्ट-बी.एच.यू. /BioNEST-BHU
विज्ञान संस्थान /Institute of Science
काशी हिन्दू विश्वविद्यालय /Banaras Hindu University
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