

AMEENA I.
Assistant Professor
Department of Microbiology
Govt Arts & Science College Kozhinjampara
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Academician with more than **14 years** of research and teaching experience and excellent academic records, worked with Central, State Government and private institutions within and outside the country as Scientist and Head of the Unit positions, currently working as an **Assistant Professor of Microbiology** under Government of Kerala, guiding various Undergraduate and Postgraduate research projects and pursuing **Doctoral Degree** under University of Calicut.

Working Experience:

▪ **Assistant Professor of Microbiology - Govt. Arts & Science College Kozhinjampara, Palakkad, Kerala, India (October 2015 – till date)**

- Employing differential teaching methods, incorporating audio and visual teaching methods and activities to address all teaching styles.
- Provide individualized instruction to keep all students at expected skill level
- Develop discipline and curriculum plans and practical methods for Post Graduate students
- Conducting innovative teaching practice with interactive sessions
- Tutorship of Undergraduate and Post Graduate students
- Impart internal mentoring to the students on personal and academic matters
- Meet with parents to discuss progress and address other related issues
- Member in the panel of PG Microbiology invigilators in University of Calicut and attending centralized UG and PG valuation camps

Other Responsibilities

- Coordinator of college Website Committee, Agriculture Club and Joint Co Ordinator of college Anti-Narcotics Club
- Co ordinator of college “Earn While You Learn” Scheme
- Instructor of Scholar Support Programme (SSP) and Walk with the Scholar (WWS)
- College Magazine Staff Editor (Former)
- Student Scholarship Nodal Officer (Former)
- Member of College Anti Ragging Squad, Women Cell and Admission Committee
- Member of College Internal Exam Committee and Placement Cell
- Department NAAC Coordinator
- NAAC Criterion Convener

▪ **Unit Head (Microbiology Division) – Geoscience Testing Laboratory, Abu Dhabi (May 2013 to September 2014)**

- Worked as a **Unit Head & Technical Supervisor** of Microbiological Division of Geoscience Testing Laboratory. The laboratory has ENAS and DAC accreditation.
- Authorized Signatory for test reports and responsible for checking, verification and approval of microbiological test reports to be issued to the client.
- Maintaining and updating all Quality records and documents to meet the requirements by ISO 17025 and ISO 9001 for Microbiology Department.
- Preparation and updating of Quality documents like Standard Operating Procedures (SOP), Method of Analysis, Standards and Guidelines.
- Conducting Internal Quality Check, updating the documents as part of Internal Audits.
- Preparation and maintenance of Master List Distribution of Controlled Documents.
- Staff competency checking, Identification of training requirements, training assessments and framing training records.
- Preparation and updating of check lists, records and forms for the performance maintenance of instruments.
- Conducting internal calibration and verification of laboratory equipments, managing external instrument calibration and maintaining calibration records.
- Documentation for external and internal Proficiency Testing Programmes.
- Conducting root cause analysis studies for internal as well as external Non Conformities and maintaining corrective action records.
- Coordinating with Quality Assurance Department to attend test witnessing towards internal quality assessments.
- Updating all the purchase documents including Purchase Requisition Note, Local Purchases Orders, Invoices and Purchase Verification Records towards the procurement of lab equipments, culture media, chemicals and other lab supplies.
- Raising proposals for the amendments of documents, records and report formats
- The laboratory is undertaking Microbiological Analysis of various food and water samples, according to the municipality regulations and gulf standards.
- Well expertise in Endotoxin analysis for dialysis units.

▪ **Junior Scientist HOD– Spices Board of India, Ministry of India (Aug 2008 - Feb 2010)**

- Worked as the **Head of the Department** of **Microbiology** in the Quality Evaluation Lab of the Spices Board of India (Ministry of Commerce & Industry, Govt of India). The laboratory is certified under ISO 9001:2000, 14001:2004 & ISO/IEC 17025:2005
- In charge of the Analytical Lab follows international accepted analytical procedures from **USFDA, ISO, AOAC, ASTA, BAM** etc.
- I was approved by the National Accreditation Board for Testing & Calibration Laboratories (NABL- ISO17025), as **Authorized Signatory** in the field of Biological Testing while working in Spices Board.
- The Microbiological Analysis includes Total Plate Count, Yeast & Molds, Coliforms, *E. coli*, *Salmonella*, *Bacillus cereus*, *Staphylococcus aureus*, *Clostridium perfringens*, *Enterobacteriaceae* and other routine microbiological analyses of food industry.
- I was responsible to impart training on various microbiological analyses of spices and spice products to internal and external analysts

▪ **Research Project Assistant -NIIST, CSIR, Govt. of India (March 2007 to April 2008)**

- Worked as a Project Fellow in the DBT funded research project “Production, Characterization & Applications of microbial α galactosidase –a therapeutic enzyme for flatulence” in the Biotechnology Div., National Institute for Interdisciplinary Science & Technology, Council of Scientific & Industrial Research, Trivandrum, Kerala, India

Achievements:

- Qualified **CSIR-JRF** Exam, Dec 2007
- Qualified CSIR/UGC **NET** Exam, June 2007
- Qualified the **GATE 2007** Examination (GATE Score-490 and All India Rank -120)
- Qualified **ICMR JRF** Exam, July 2007 as a Junior Research Fellow in ‘ICMR funded Research Projects/Scheme’
- First Rank – Spices Board All India Exam for Junior Scientist (June 2008)

Academic Credentials:

- **M Sc. Microbiology (2006)**, M G University, Kerala, India, **First Rank** (CPI 8.1)
- **B Sc. Industrial Microbiology (2004)** Kerala University, India, **Third Rank** (94 %)
- **Pre Degree (2001)**, Kerala University, India (85%)
- **SSLC (1999)**, Board of Public Examination, Kerala (94%)

Technical Expertise:

- Endotoxin Analysis of water using Kinetic chromogenic method.
- Analysis of various food materials, soft drinks etc. for normal and pathogenic microbial contaminants.
- Analysis of water samples for various microbial contaminants including Legionella.
- Analysis of food for aflatoxin, histamine and pesticide residues using Kit methods.
- Well expertise in all routine microbiological laboratory works for the isolation, enumeration and identification of microorganisms covering bacteria and fungi.
- Analysis of wastewater for Biological and Chemical Oxygen Demand (B.O.D & C.O.D) to ensure the environmental safety.
- Analysis of Milk and Water for its quality checking by MBRT and MPN methods respectively.
- Immunological and serological works like agglutination, precipitation etc. for blood grouping, VDRL test, Widal tube test, ELFA etc.
- Hematological exercises like Blood cell identification, total Count, Differential Count, Hemoglobin estimation etc.
- Quantitative and Qualitative estimation of Carbohydrates, proteins, cholesterol, amino acids and nucleic acids, enzymatic hydrolysis of sugars and assay of different industrially important enzymes like xylanases and α galactosidases etc.
- Industrial biotechnological works like production, characterization and application of industrially important enzymes like xylanases, α -galactosidases and alcohols like xylitol by using economically important and cost effective techniques like solid state and submerged fermentation.
- Molecular Biology practices like Isolation of Nucleic acids, Polymerase Chain Reaction, PAGE, SDS-PAGE, Agarose gel electrophoresis etc.

Instrumental Skills:

- Kinetic Chromogenic Tecan Instrument for endotoxin analysis
- Sophisticated Automated instrument namely VIDAS for the detection and enumeration of pathogens like *Salmonella* and *Listeria* which works under the immunological principle ELFA.
- Membrane filtration unit for water analysis, Colony Counter for enumeration of bacterial colonies on culture plates, Refractometer for refractive index and brix value.
- U.V absorption Spectrophotometer.
- Electrophoresis apparatus for Polyacrylamide and Agarose gel electrophoreses.
- Gel Documentation Apparatus for visualizing purified nucleic acids in gel.
- Dialysis, Ammonium Sulphate Precipitation, centrifugation etc. as a part of partial purification of enzymes.
- pH meter, Water Distillation Unit, Micropipette, Analytical Balance, Autoclave, Microscopes, Hot Air Oven, Incubator, Centrifuge, Vortex mixer, Laminar Air Flow, Biosafety Cabinet etc.

Academic Project Undertaken : M.Sc. Dissertation

‘Xylitol and Ethanol production from hemicelluloses-lignocellulosic waste materials’ from the Biotechnology Division, National Institute for Interdisciplinary Science & Technology (CSIR, Trivandrum, Kerala, India carried out during April to June 2006.”

Job Training Attended:

- Microbiological Examination of cashew kernels- C.E.P.C Laboratory and Technological Division (Sponsored by Govt. of India), Kollam, Kerala, India.

Training Certificate:

Successfully completed a Training Programme in HACCP Concepts at Central Institute of Fisheries Technology (CIFT), Indian Council of Agricultural Research, Cochin, Kerala, India.

BSc Projects Supervised:

- Guided graduate level academic project entitled “Isolation, Biochemical characterization and Efficiency study of Phosphate solubilising microorganisms from the rock samples of western Ghats”, 2016-2017
- Guided graduate level academic project entitled “Isolation, and identification of cellulose digesting microorganisms from earthworm gut and vermi compost”, 2018-2019
- Guided graduate level academic project entitled “Isolation, and identification of keratin digesting microorganisms from feather waste dumping sites”, 2022 - 2023
- Guided Post Graduate academic project entitled “Cellulolytic and xylanolytic microorganisms from Western Ghats”, 2022 - 2023
- Guiding graduate level academic project entitled “Antimicrobial Resistance of Vancomycin resistant microorganisms from water bodies”, 2023 - 2024

- Guiding Graduate level academic project entitled “Therapeutic use of some selected herbals against dandruff causing dermatophytes”, 2023 – 2024
- Guiding Post Graduate level academic project entitled “Production and purification of of xylanase enzyme for biofuels”, 2023 – 2024

National Seminars Organised:

As Organizing Co-ordinator.

- ‘Go Green with Microbes-2017’, Dept. of Microbiology, GASC Kozhinjampara, Kerala

As Organizing Committee Member.

- ‘Food Safety On Focus- 2015’, Dept. of Microbiology, GASC Kozhinjampara, Kerala
- ‘Vaccines- Overview & Updates-2016’, Dept. of Microbiology, GASC Kozhinjampara
- ‘Proteins & Prospects-2018’, Dept. of Microbiology, GASC Kozhinjampara, Kerala
- ‘Sustainable Microbial innovations – 2023’ Dept. of Microbiology, GASCK, Kerala

As Participant.

- ‘Bio Quest-2003’, Govt. College Kariavattom, Kerala
- ‘Frontiers in Biotechnology-2004’, Bishop Moore College, Mavelikkara, Kerala

Computer Proficiency:

- Diploma in Computer Application, DCSM-India.
- Skilled working with Windows 7 and higher
- Experience in Microsoft office packages
- Experience in smart board applications

Research Publications:

- “Isolation, Characterization and Efficiency Study of Phosphate Solubilizing Microorganisms from the Rock Samples of Western Ghats” *International Journal of Scientific Research in Multidisciplinary Studies*, 2020, ISSN: 2454-6143

Language Proficiency:

- English, Hindi, Arabic, Malayalam

Personal Information:

Name	:	Ameena Ibrahim Kutty
Age & Sex	:	39 years & Female
Nationality	:	Indian
Marital Status	:	Married