



## Bishop Heber College [Autonomous]

(Nationally Reaccredited with 'A' Grade by NAAC with a CGPA of 3.58 out of 4)  
("Recognised by UGC as "College of Excellence")  
DST-FIST Sponsored & DBT Star College, Tiruchirappalli-620017, Tamilnadu, India



## POST GRADUATE AND RESEARCH DEPARTMENT OF ENVIRONMENTAL SCIENCES



**Dr. ALAGAPPA MOSES. A**

Associate Professor & Head,  
Department of Environmental Sciences

### Contact details

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### Staff Profile

The department has 11 eminent faculty members teaching the UG, PG, & UG-Environments studies and guiding students for Ph.D facility members of co-ordinating department also contribute their expertise.

**Prof. A. Alagappa Moses**, Associate Professor & Head  
His areas of specialization include Environmental Management, EIA, Environmental Engineering, Sustainable Development, Conservation Biology and Restoration Ecology.

**Dr. C. Ravichandran**, Associate Professor  
He is specialized in Air Quality Assessment, Environmental Impact Assessment, and Noise Pollution Assessment & Solid Waste Management.

**Dr. A. Daisy Caroline Mary**, Assistant Professor  
Her area of Specialization is Environmental Education, Butterflies and Ecology.

**Dr. D. Udhayabanu**, Assistant Professor  
She has pursued her research work on Solid Waste Management. Her field of interest is on Solid Waste Management and Environmental Education.

**Dr. R. Carlton**, Assistant Professor  
He pursued his research in ecology of butterflies and completed his Ph.D in the year 2019. His area of interest is ecology, conservation, birds, butterflies and environmental education.

**Dr. M. Sheela Mary**, Assistant Professor  
Her area of Specialization is Environmental Toxicology, Environmental Microbiology and Biotechnology.

**Dr. R. Teneson**, Assistant Professor  
He has pursued his research work on Ecology and completed his Ph.D. in the year 2018. His field of interest is on Ecology, Biodiversity, Air and Water quality monitoring.

**Dr. C. Sukumar**, Assistant Professor  
He has pursued his research work on Environmental Microbiology. His area of interest is Environmental Toxicology, Environmental Microbiology and Biotechnology.

**Dr. D. Mahamuni**, Assistant Professor  
He has pursued his research work on Environmental Microbiology. His area of interest is Environmental Microbiology, Biotechnology and Biodiversity.

**Dr. S. Sukumar**, Assistant Professor  
He area of his research work and specialization is Remote sensing and GIS.

**Dr. H. Sumathy**, Assistant Professor  
She has pursued his research work on Solid Waste Management. Her area of interest is waste management, pollution and environmental education.

### Student Progress Status – Alumni

#### Dr. P. Shanmugam

1988-90 Sr. Principal Scientist  
Head & Professor – AcSIR Environmental Science Lab CSIR- central Leather Research Institute Adyar, Chennai

#### Dr. G. Kamalak Kannan

1988-90 Scientist, 'F' & Joint Director  
Defence bio- Engg. & Electro medical Laboratory (DEBEL) Defence R & D Organisation (DRDO) Ministry of Defence C.V. Raman Nagar, Bangalore

#### Dr. Lalitha Ashokan

1990-92 CEO at Pioneer Quality Consultancy  
United Arab Emirates

#### Dr. Kumaran

1992-94 Dean Research (i/c)  
Periyar Maniammai Institute of Science and Technology Thanjavur, Tamil Nadu, India

#### Dr. Narendran Kdandapani

1993-95 Director Research  
Center. For Advanced Spatial & Environmental Research, Bengaluru, Karnataka

#### Prof (Dr.) Muthukumar

1993-95 Dean- School of Earth Science Systems  
Head, Department of Environmental sciences  
Central University - Kerala

#### Dr. Vimala

1987-89 CEO Env. Consult org. USA

#### Arulmozhi

1989 - 91 Environmental Engineer, Dubai

#### Srinath

1992-94 Professor, United States

#### Balaiji

1991-93 Environmental Engineer, Singapore



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### About the Department

Bishop Heber College (Autonomous), a premier institution pioneering in higher education situated in an aesthetically landscaped campus with architecturally designed buildings has acquired a unique position in providing quality education. It started the Postgraduate Department of Environmental Sciences in the year 1984 with a mission to ensure environmental sustainability. This unique PG program, the first of its kind in South India, is an interdisciplinary programme involving various science disciplines and social sciences. It was upgraded as Research department in the year 1990. Since then the department has been producing doctorates and has received many major and minor research projects from the Ministry of Environment, Government of India.





## Vision

The department envisions to accomplish academic and professional excellence through holistic Environmental Science Education, ignite young minds, foster ethical attitude, nurture mutual love and compassion towards nature, and empower them to take up a promising career to create and contribute to the Nation and ultimately to environmental sustainability.

## Mission

- ▶ Impart World-Class Education through Scientific and Inter-disciplinary propensity, and create passion for Environment through well-designed curriculum and dedicated teaching.
- ▶ Inculcate principles of environmental stewardship by experiential learning and instill the aptitude and attitude for cutting-edge research in multifarious fields of environment.
- ▶ Promote holistic development by fostering environmental, ethical and social values and building scientific, communicative and leadership qualities with competency to face the Global Environmental challenges.
- ▶ Nurture self-motivated, life-long learning environmentalists and environmental entrepreneurs in partnership with academia, industry, community, governmental and non-governmental organizations for achieving sustainable development goals.

## Programmes Offered:

### M.Sc., Environmental Sciences since 1984 (Minimum 90 credits)

This is an inter-disciplinary programme involving the disciplines of Physics, Chemistry, Botany, Zoology, Mathematics and Computer Sciences. The programme consists of 4 semesters. In the first 2 semesters students are exposed to a detailed study of the environment and the next 2 semesters they study environmental pollution and its monitoring and management at all levels. The curriculum involves visits by the students to different ecosystems, various industries, laboratories, research organizations, waste management facilities and regulatory agencies to gain practical knowledge. The dissertation work in the final semester facilitates the students to choose their career path.

### B.Sc., Environmental Sciences since 2017

Pertaining to the extensiveness of the Nature and environment, the need for under graduate programme in Environmental Sciences was felt indispensable to have basic inputs and facilitate higher learning. Keeping in view of needs of environmental protection in natural habitats and controlling pollution in Industrial sectors, B.Sc., Environmental Sciences was introduced in 2017.

### Ph.D. in Environmental Sciences (Full Time/Part Time)

The programme has been designed to meet the human resources needs of industries, government and non-governmental departments and agencies, research organizations and academic institutions.

### PG Diploma in Industrial Safety and Occupational Health (One year)

With the advent of globalization, safety of personnel at industrial sites has rightly acquired importance on par with quality and timely delivery. For this reason Department of Environmental Sciences, Bishop Heber College collaborated with Bharath Heavy Electrical Limited (BHEL), Trichy and started this Programme. The objective of the programme is to enable a person to acquire the knowledge, skills and perspective necessary to contribute effectively to the industrial safety function in a large/medium – scale industrial establishment. The postgraduate science students are eligible to do this program concurrently.

### Certificate Programme in Industrial Safety and Hygiene (Six months)

To expose the science students to the field of Industrial safety and hygiene in industrial environments, certificate programme in Industrial Safety and Hygiene is being offered since 2019. The UG science students are eligible to do this course concurrently.

### Post Graduate Diploma in Integrated Solid Waste Management (One year)

Integrated solid waste management refers to the strategic approach to sustainable management of solid wastes covering all aspects, including generation, segregation, transfer, sorting, treatment, recovery and disposal in an integrated manner, with an emphasis on maximizing resource use efficiency. This programme empowers to meet the human resource need of the waste management facilities.

## Curricular/Instructional & Learning Resources

Infrastructural facilities available & E – Resources

### Laboratories

- ▶ Hands on training in fully laboratories of
- ▶ Environmental sciences,
- ▶ Chemistry, Physics, Biology, Micro Biology and Computer Science

### Incubation Centre & Skill Development

- ▶ Innovation and Incubation Cell for environmental training, internship and entrepreneurship

### Extra-credit & Value Added Courses

- ▶ Photography & Digital Image Processing
- ▶ Entrepreneurship in Waste Recycling

### International Students Exchange Programme

## Thrust areas of Research

- ▶ Water, air and soil quality – assessment and treatment
- ▶ Waste management
- ▶ Biodiversity

## Research Outputs

- ▶ Opportunities in National and International conference, Workshop and Seminars
- ▶ Publication opportunities

## Career Outreach Initiatives

- ▶ Projects
- ▶ Internship at preferred institutes/industries
- ▶ Industrial visits
- ▶ Field visits
- ▶ Educational / eco tours
- ▶ Consultancy Services offered to
- ▶ Governmental projects
- ▶ Industries
- ▶ Environmental consultancies
- ▶ Non –Governmental Organizations
- ▶ Educational Institutions
- ▶ Public

**Students are part of the team and thereby gain on-field and analytical experiences.**



Students at Industrial Visit



Industrial safety Classes



Students at Lab Work



Eco Tour



## INTERNATIONAL COLLABORATIONS

- ▶ Au Sable Institute of Environmental Studies, Mancelona, Michigan, USA.
- ▶ Davidson College, North Carolina, USA.
- ▶ Wolverhampton University, UK
- ▶ United Board for Christian Higher Education in Asia, Hong Kong

## OUTREACH ACTIVITIES

- ▶ Greening and cleaning activities
- ▶ Environmental audits of institutions
- ▶ Green Audit of institutions

## FUTURE PLANS

Extension of waste management facility and facilitating internship opportunities

## UNIQUENESS

- ▶ Holistic Education realized by
- ▶ Teaching complimented by practical in labs and field
- ▶ Real time experience of industrial and natural environments
- ▶ Practice School and internship enabling pre-career experience
- ▶ Student participation in projects providing work experiences
- ▶ Student seminar enhancing research aptitude and personality development

## Centre for Environmental Sustainability and Resource Recovery Management (CES-RRM)



## Environmental Consultancy



## MoUs



with SWEAR Trust



with Citizen for Uyyakondan

## Extension activities

