

ANUSHYA DEVI M

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PERSONAL DETAILS

- Father's Name : Y. Mohan Dhas
- Date of Birth : 20/04/1994
- Linguistic Proficiency : Tamil, English
- Nationality : Indian

CAREER DETAILS

Has worked as Assistant Professor (Gr.I) for a period of one year at Kalasalingam Academy of Research and Education.

EDUCATION

Degree/ Examination	Year of Passing	School/Institute	Board/University	Percentage / Grade
M.Tech (Environmental Engineering)	2017	National Institute of Technology, Tiruchirapalli	National Institute of Technology, Tiruchirapalli	8.41
Bachelor of Industrial Biotechnology	2015	Anna University, Chennai	Anna University	8.68
Class XII	2011	St. Joseph's Mat. Hr. Sec.School, Nagercoil	State board	96
Class X	2009	St. Joseph's Mat. Hr. Sec.School, Nagercoil	Matriculation System	88

PROJECT WORK / TRAINING

PG Project

Biodegradation of Dyes and Pigments using Immobilized Bacterial-fungal Consortium (2017)

A project done in partial fulfilment of M.Tech degree in Environmental Engineering at Environmental Engineering Laboratory, **National Institute of Technology**, Tiruchirapalli.

Dyes and pigments are genotoxic, mutagenic and carcinogenic compounds that damage the health of biota. Wastewater containing dyes and pigments is one of the major sources of pollution for surface and groundwater bodies. Various physico-chemical and biological

strategies have been devised to remove dye contaminants from such wastewaters. Biotechnological approaches are known for their relative cost-effectiveness and environmentally friendly nature. Microbes have the potential to enzymatically degrade and decolorize the dye containing textile effluents. Fungal bacterial consortium was employed as fungus helps in degrading recalcitrant compounds and bacteria is required for complete TOC removal.

UG Project

Generation and Characterization of *csgA* gene knockout in *Salmonella* Typhimurium (2015)

A project done in partial fulfilment of B.Tech degree in Industrial Biotechnology at Molecular Biology and Cell Biology Department, **Indian Institute of Science**, Bangalore.

The study majorly focuses on the biofilm formation ability of *Salmonella* and the gene responsible for it. Several operons code for the different components of biofilm, the *csg* operon being a key player. *CsgD* is the master regulator of *csg* operon and *csgA* gene encodes curli fimbriae which is a major component of biofilm. Hence, a detailed study of this gene was inevitable in understanding the biofilm formation. The study involved generation of *csgA* gene knockout in *Salmonella* by λ Red Recombination system, followed by characterisation of the mutant. The phenotypic analysis of the mutant showed that *Salmonella* lacking the *csgA* gene was incapable of biofilm formation.

AREAS OF INTEREST

- Microbiology
- Biochemistry
- Genetic Engineering and Molecular Biology
- Protein Engineering
- Environmental Quality Measurement
- Environmental Impact Assessment

SOFTWARE SKILL SET

- Operating system : Windows
- Packages : MS office (MS word, Excel, PowerPoint)

ACADEMIC ACHIEVEMENTS & CO-CURRICULAR ACTIVITIES

Trainings

- Presented the work on “Biodegradation of textile wastewater using fungal bacterial consortium” in National Conference on **Innovations & Future Perspectives of Nanotechnology** (IFPN’ 17) held at GCT Coimbatore. (2017)

- Presented the work on “Biodegradation of textile wastewater using fungal bacterial consortium” in a **Research Colloquium on Environmental and Water Resources Engineering** organised by Rajiv Gandhi Institute of Technology, Kottayam. (2016)
- Participated in All India Conference on “**Cost Effective Effluent Treatment Systems**” organised by National Institute of Technology, Tiruchirapalli. (2015)
- Undergone in plant training in **Indian Rare Earths limited**, Manavalakurichy, Tamilnadu. (2015)
- Participated in one day training programme on “**Comprehension of basic subjects**” organised by centre for Nano science and technology, Anna university Chennai. (2013)
- Undergone in plant training in Vivek institute of laboratory medicine, Nagercoil. (2013)
- Participated in a two day workshop on “**Basic and Innovative Biology**” organised by NI college of Arts and Science and Science city, Kumaracoil. (2010)

Internship

Over expression of pYPD1 gene in *Magnaporthe oryzae* (2014)

- A summer internship programme under **Indian Academy of Sciences (IASc) summer fellowship** carried out at Genome research centre, MS University, Vadodara.
- The project is concerned with the *ypd1* gene of the organism *Magnaporthe oryzae*, the causative agent of rice blast disease. This gene plays a key role in the life cycle of the organism in coping with the stressful environments. The *ypd1* gene was over expressed in the *M.oryzae* B157 strain by protoplast transformation. The phenotype of the transformants for stress sensitivity and starvation was analyzed. Later protein expression was checked by means of Western Blotting. Meanwhile, an effort was also made to develop a construct where the gene fused with GFP would be expressed under its native promoter. Various tolerance assays were conducted to confirm the virulence nature of the gene using GFP as the marker.

EXTRA CURRICULAR ACTIVITIES

- Runner in intra-college ball badminton event. (2013)
- Was an active member in National Sports Organisation. (2011-2012)
- Cleared the Rashtrabhasha examination conducted by the Dakshina Bharat Hindi Prachar Sabha.(2008)
- Was awarded Distinction in State level Thulir Student Scientific Awareness Talent Test. (2006)
- Secured 73 percent marks in the 48th Annual All India UN Information Test conducted by the Council for UN Information, a wing of USO (2005).
- Secured 12th rank in the Talent Search Examinations (National level) for the year 2004-2005 conducted by Holy Faith International, New Delhi.
- Was an active participant in various exams conducted by Shakespeare Institute of English Studies.
- Interested in Pencil Drawing.