

**Dr. A. EDWARD**  
Assistant Professor & Head  
Department of Biotechnology  
St Joseph's College (Autonomous), Trichy 620 002, INDIA  
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TEACHING EXPERIENCE - 16 Years

2003 – Till date: Assistant Professor in Biotechnology, St. Joseph's College, Trichy.

ADMINISTRATIVE EXPERIENCE

- Member, Board of Studies in Biotechnology, Bharathidasan University, Tiruchirappalli.
- Member, Board of Studies in Biotechnology, St. Joseph's College, Tiruchirappalli.
- Ex-President of the Biotechnology Association, St. Joseph's College, Tiruchirappalli.

SPECIALIZATION

- Molecular Microbiology

ACADEMICS

- Full time **teaching faculty** (Self financing - Regular) since June 2003.

Position & Employment

- Institution & Place : St Joseph's College, Trichy - 620 002
- Position : Assistant Professor

EDUCATION

Degree	College & University	Year	Class	% Marks
PhD Biotechnology	St. Joseph's College Tiruchirappalli, 620 002. (Affiliated to Bharathidasan University)	2007-13	Commended thesis	
M. Sc. Biotechnology	Loyola College (Autonomous) Chennai, 600 034. (Affiliated to University of Madras)	1999-2001	First	4.59/5

B. Sc. Botany	Loyola College (Autonomous) (Affiliated to University of Madras) Chennai, 600 034.	1996-99	First	76.0
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Title of the PhD Thesis

- An investigation on the integrons and their gene cassettes in stressful environment.

Honors/Awards

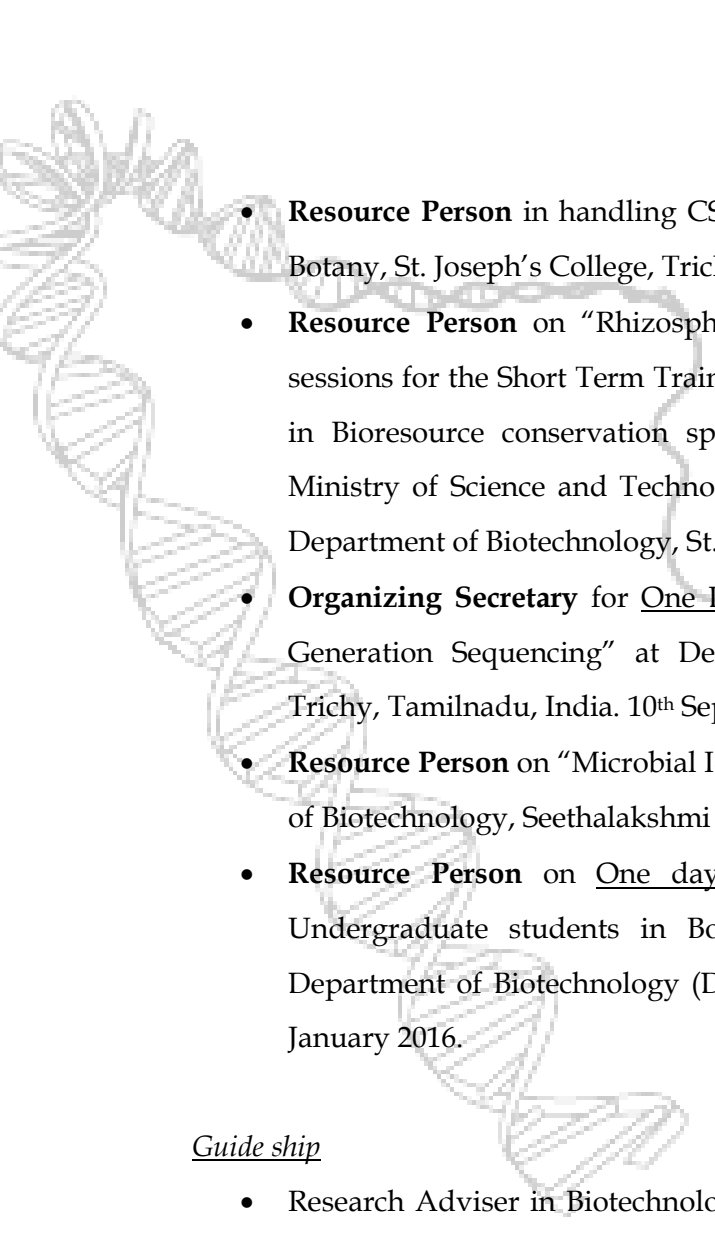
- **Ex-Member** of Member Quality Assurance Cell (IQAC) of St Joseph's College.

Fellowships and Training

- Selected as IASc-INSA-NASI Summer Research Fellow and undergone two months training under Prof. Deepak Pental, Centre for Genetic Manipulation of Crop Plants (CGMCP), Department of Genetics, University of Delhi South Campus, New Delhi, India from 01 May – 30 June 2008 titled "**MOLECULAR MAPPING OF BRASSICA JUNCEA GENOME USING INTRON POLYMORPHISM MARKERS**".

Resource Person

- **Resource Person** for Two days workshop on "**Molecular Techniques**", organized by Sengamala Thayar Educational Trust Women's College, Mannargudi, Tamilnadu, India. 19 & 20 January 2006.
- **Organizing Secretary** for One day workshop on "Techniques in Molecular Pathology and Diagnostics" at Department of Biotechnology, St. Joseph's College, Trichy, Tamilnadu, India. 24<sup>th</sup> September 2014.
- **Co-Organizing Secretary** for One day workshop on "Techniques in DNA Barcoding" at Department of Biotechnology, St. Joseph's College, Trichy, Tamilnadu, India. 10<sup>th</sup> December 2014.
- **Organizing Secretary** for One day "International Scientist Meet" at Department of Biotechnology, St. Joseph's College, Trichy, Tamilnadu, India. 15<sup>th</sup> December 2015.
- **Organizing Secretary** for One Day National Seminar on "Prospects and Challenges in Stem cell research" at Department of Biotechnology, St. Joseph's College, Trichy, Tamilnadu, India. 12<sup>th</sup> January 2015.

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- **Resource Person** in handling CSIR-NET Coaching organized by the Department of Botany, St. Joseph's College, Trichy, Tamilnadu, India.
  - **Resource Person** on "Rhizosphere microbes and its role" and handled practical sessions for the Short Term Training Course (STTC) on "*In vitro* and *In vivo* methods in Bioresource conservation sponsored by Department of Biotechnology (DBT), Ministry of Science and Technology, Govt. of India, New Delhi, organized by the Department of Biotechnology, St. Joseph's College, Tiruchirappalli. 06-17 July, 2015.
  - **Organizing Secretary** for One Day National Level Technical Workshop on "Next Generation Sequencing" at Department of Biotechnology, St. Joseph's College, Trichy, Tamilnadu, India. 10<sup>th</sup> Septmeber 2015.
  - **Resource Person** on "Microbial Identification by PCR", organized by the Department of Biotechnology, Seethalakshmi Ramaswami College, Trichy. 25 September 2015.
  - **Resource Person** on One day Workshop on "Electrophoretic techniques" for Undergraduate students in Botany of St. Joseph's College sponsored by the Department of Biotechnology (DBT), Govt. of India under Star College Scheme. 19 January 2016.

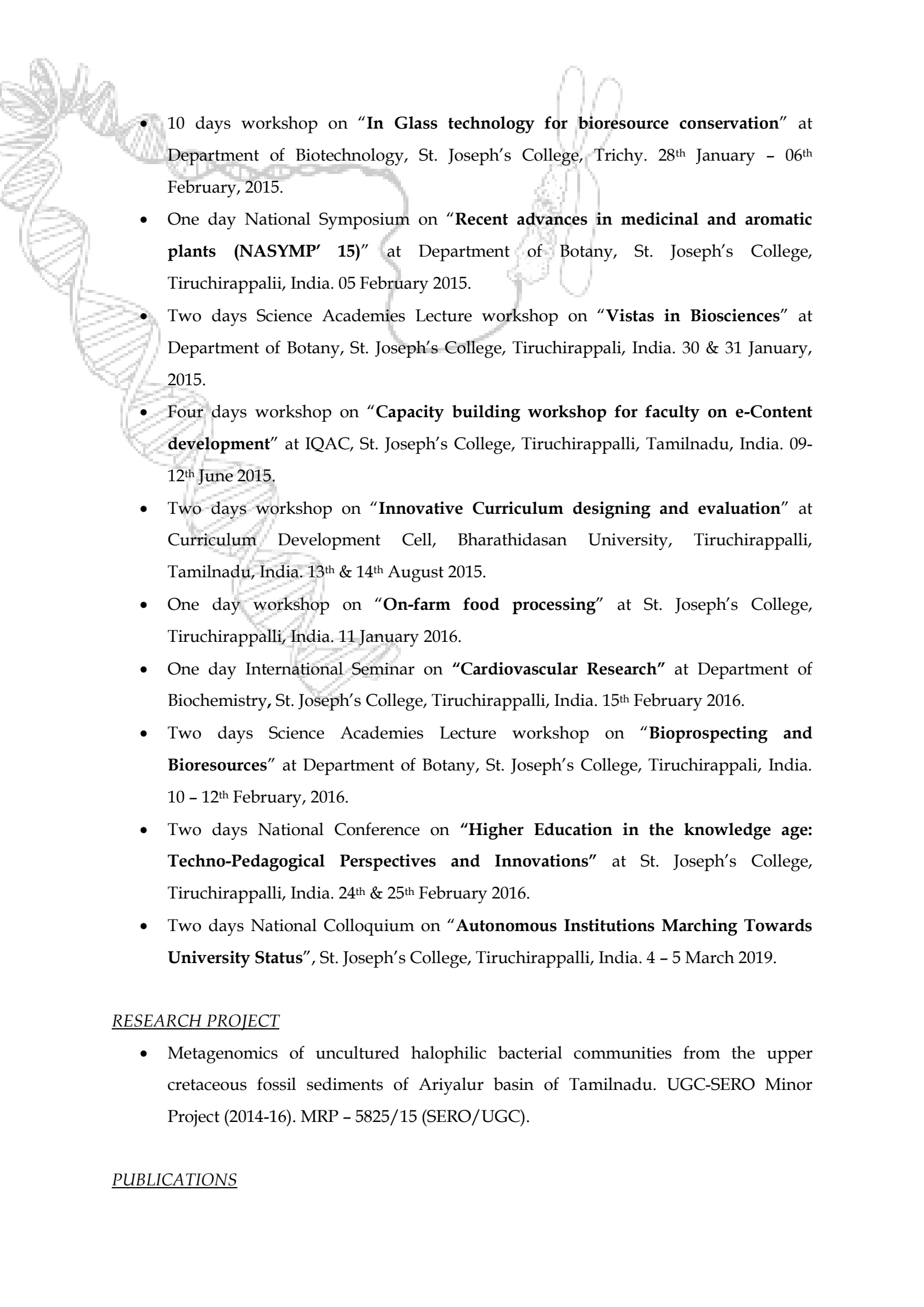
#### Guide ship

- Research Adviser in Biotechnology (Ref. No. 46432/Ph.D.K7/Biotechnology/R.A. - Recogn. Date: 23.12.2013)

#### Conference/ Seminar /Symposium Attended

- One day workshop on *Polymerase Chain Reaction*. Organized by Department of Biotechnology, St. Joseph's College, Tiruchirappalli, India and Eppendorf, India. July 2003
- Two days workshop on *Advanced Biochemical Techniques and tissue culture*. Organized by the Departments of Biotechnology and Biochemistry, St. Joseph's college, Tiruchirappalli, India. August 2003.
- One day workshop on *Techniques in Fluorescent Microscopy*. Organized by Department of Botany, St. Joseph's College, Tiruchirappalli, India. February 2004.
- Two days workshop on *Techniques in Clinical and Experimental Immunology*. Organized by Department of Biochemistry, St. Joseph's College, Tiruchirappalli, India. February 2004.

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- Seminar on *Immunoinformatics*, Organized by Department of Biochemistry, St. Joseph's College, Tiruchirappalli, India. 2004.
  - Seminar on *Molecular Virology*, Organized by Department of Biotechnology, St. Joseph's college, Tiruchirappalli, India, August 2004.
  - Two days State level workshop on *Techniques in Plant Tissue Culture and Histochemistry*, Organized by Department of Botany, St. Joseph's College, Tiruchirappalli, India. September 2004.
  - National level seminar on *Digitalised information exchange for quality sustenance and enhancement among accredited institutions*, Organized by St Joseph's College, Tiruchirappalli, TN, India. 3 & 4 March 2005.
  - Five days National level workshop on *Generation and purification of Polyclonal and Monoclonal antibodies for the diagnosis of infectious diseases*, Organized by Department of Microbiology, PSG College of Arts and Science, Coimbatore, India. October 2005.
  - One Day National Seminar on *Environmental Genomics* at Bharathidasan University, Tiruchirappalli, India. 20 March 2006
  - One day National level workshop on *Patent awareness* sponsored by Technology Information Forecasting and Assessment Council and Tamil Nadu State Council for Science and Technology, Organized by Department of Biotechnology, St. Joseph's College, Tiruchirappalli, India. April 2006
  - Three days National level workshop on *Bioinformatics: Tools and Applications* sponsored by Bioinformatics Facility, Department of Biotechnology (DBT), New Delhi Organized by Department of Biotechnology & Bioinformatics, Holy Cross College, Tiruchirappalli, India. January 2006.
  - Three days International Conference on Third Indo - US Lecture series on "*Discrete Mathematical Chemistry: Chemoinformatics and Bioinformatics*", at Bharathidasan University, 7 to 10 January 2008.
  - Two days National Conference on "*Quality Enhancement and Sustenance in Higher Educational Institutions through Six Sigma (6σ) Quality Strategy*" at St. Joseph's College, Tiruchirappalli, India. 23 - 24 October 2008
  - Two days National Conference on "*Higher Education and National Development - The Challenge of expansion, quality and inclusion*", at St. Joseph's College, Tiruchirappalli, India. 30 - 31 January 2009.

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- 10 days workshop on **“In Glass technology for bioresource conservation”** at Department of Biotechnology, St. Joseph’s College, Trichy. 28<sup>th</sup> January – 06<sup>th</sup> February, 2015.
  - One day National Symposium on **“Recent advances in medicinal and aromatic plants (NASYMP’ 15)”** at Department of Botany, St. Joseph’s College, Tiruchirappalli, India. 05 February 2015.
  - Two days Science Academies Lecture workshop on **“Vistas in Biosciences”** at Department of Botany, St. Joseph’s College, Tiruchirappalli, India. 30 & 31 January, 2015.
  - Four days workshop on **“Capacity building workshop for faculty on e-Content development”** at IQAC, St. Joseph’s College, Tiruchirappalli, Tamilnadu, India. 09-12<sup>th</sup> June 2015.
  - Two days workshop on **“Innovative Curriculum designing and evaluation”** at Curriculum Development Cell, Bharathidasan University, Tiruchirappalli, Tamilnadu, India. 13<sup>th</sup> & 14<sup>th</sup> August 2015.
  - One day workshop on **“On-farm food processing”** at St. Joseph’s College, Tiruchirappalli, India. 11 January 2016.
  - One day International Seminar on **“Cardiovascular Research”** at Department of Biochemistry, St. Joseph’s College, Tiruchirappalli, India. 15<sup>th</sup> February 2016.
  - Two days Science Academies Lecture workshop on **“Bioprospecting and Bioresources”** at Department of Botany, St. Joseph’s College, Tiruchirappalli, India. 10 – 12<sup>th</sup> February, 2016.
  - Two days National Conference on **“Higher Education in the knowledge age: Techno-Pedagogical Perspectives and Innovations”** at St. Joseph’s College, Tiruchirappalli, India. 24<sup>th</sup> & 25<sup>th</sup> February 2016.
  - Two days National Colloquium on **“Autonomous Institutions Marching Towards University Status”**, St. Joseph’s College, Tiruchirappalli, India. 4 – 5 March 2019.

#### RESEARCH PROJECT

- Metagenomics of uncultured halophilic bacterial communities from the upper cretaceous fossil sediments of Ariyalur basin of Tamilnadu. UGC-SERO Minor Project (2014-16). MRP – 5825/15 (SERO/UGC).

#### PUBLICATIONS

### In Journals

- **Edward**, 2017. Phylogenetic analysis of unculturable halophilic bacteria in the fossil sediments of Ariyalur basin. *International journal of Pure and Applied Bioscience*, 5(5): 348-352.
- **Edward et al.**, 2014. Investigation of antibacterial and haemolytic activity of Russell's viper and *Echis carinatus* venom. *Asian Journal of Pharmaceutical Analysis*, 4:1-4.
- **Edward et al.**, 2014. Monosodium glutamate exposure alters histopathological and biochemical variables in rats under constant light. *Asian Journal of Research in Pharmaceutical Sciences*. 4:1-4.
- **Edward et al.**, 2013. Evaluation of antifungal activity of peptides and enzymes against the Sugarcane Red Rot Pathogen, *Colletotrichum falcatum*. *Middle-East Journal of Scientific Research*, 15 (5): 748-756.
- **Edward et al.**, 2012. Purification and characterization of lectins from *Adhatoda vasica*. *Journal of Tropical Medicinal Plants*, 13(2):129-132.
- **Edward et al.**, 2012. Role of Efflux Pumps in Affording Organic Solvent Tolerance to Bacterial Strains from Petroleum Contaminated Soil. *Middle-East Journal of Scientific Research* 12 (1): 80-87.
- **Edward et al.**, 2012. An Investigation on Organic solvents tolerance, Heavy metals and Antibiotics resistance of *Bacillus oleronius* from Petroleum contaminated soil. *Nature and Science*, 10(10): 69-75. (Citation - 1)
- Antony Prabhu J, Melchias G, Sridevi, Beena Ann and **Edward A.** 2012. Biodegradation of azo dyes by microbial population isolated from upper cretaceous limestone rocks. *International Journal of Institutional Pharmacy and Life Sciences*, 2(2): 125-132.
- Antony Prabhu J, Melchias G, Angel Priya J and **Edward A.** 2012. Significance of microbiological diversity of the upper cretaceous fossil soil. *International Journal of Institutional Pharmacy and Life Sciences*, 2(2): 63-70.
- Kalaiyarasan, S. Ahmed John and **A. Edward.** 2012. Antimicrobial activity of orchid root, Eastern Peninsular Flora in India. *Nature and Science*, 10(11): 63-67.
- Kalaiyarasan, S. Ahmed John and **A. Edward.** 2012. Evaluation of phytochemical and antimicrobial properties of orchid in Kolli hills. *Nature and Science*, 10(10): 184-188. (ISSN No. - 1545-0740)
- Eby John, Linson Thomas, **Edward A.**, Melchias G and Jeyapaul Antony Prabhu. 2011. DNA Barcoding: A New-Fangled Global Standard of Taxonomical Frontier -

A Review. *World Applied Sciences Journal* **15** (3): 304-310. (Citation - 1)

- **Edward A**, Melchias G, J. Antony Prabhu, A. Wilson, V. Anbananthan and K. Sivaperumal. 2011. Detection of exopolysaccharides / bioemulsifier producing bacterial isolates from petroleum contaminated soil. *International Journal of Biological Technology* **2**(2): 1-7. (Citation - 4)
- **Edward A**, Melchias G, Eby J. and Linson T. 2011. Comparative *in silico* and phylogenetic analysis of 16S rRNA of *Bacillus oleronius* strain isolated from petroleum contaminated soil. *Electronic Journal of Environmental Sciences* **4**: 91-98.

### National

1. *Combined Multispecific Immunostimulators (CMI) for Malaria*, A National Level Technical Symposium Genesis 2K5, Organized by School of Engineering and Technology, Bharathidasan University, 14<sup>th</sup> & 15<sup>th</sup> October 2005.

### M.Phil Awarded to

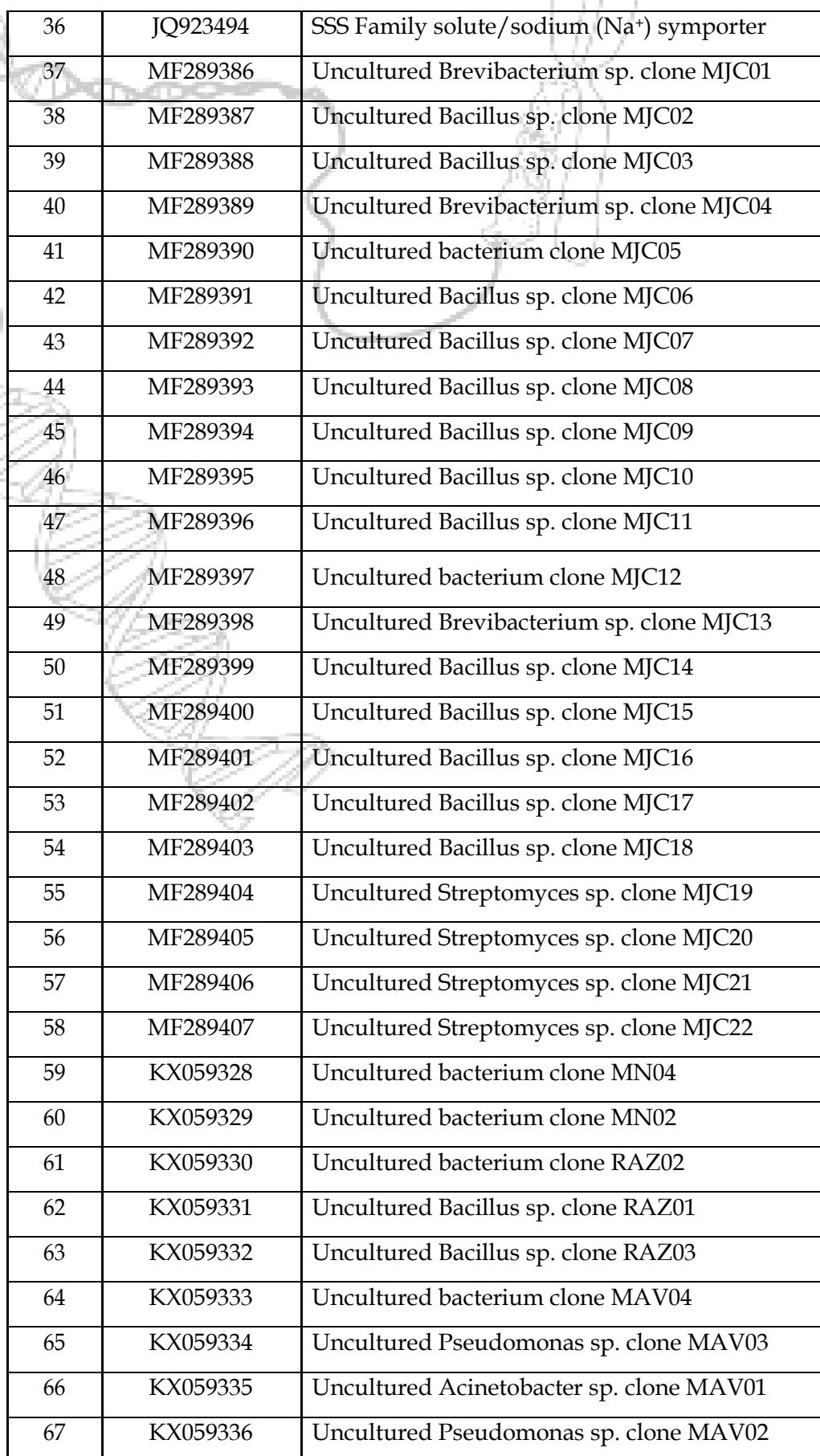
Scholar Code	Scholar Name	Date of ViVa	Title
14MBT102	B. Dhivya	2015	Molecular characterization and Evaluation of selected Actinomycetes and other isolates against human pathogens.
14MBT101	S. Praveena	2015	Studies on Biochemical characterization, Plasmid profile, biofilm formation and antimicrobial susceptibility.
14MBT108	G. Gomathi	2015	DNA barcoding of selected xerophytic plants
16MBT101	R. Queen Prabha	2017	Molecular characterization of zooplanktons in Indian waters
15MBT101	C. Charan Kumar	2016	DNA barcoding of Tomato Leaf Miner, <i>Tuta absoluta</i>
16MBT103	K. Gracy Angel	2017	Phylogenetic diversity of fungi associated with tarballs from Betul Beach, Goa

### 16S Ribosomal RNA Nucleotide Sequences Deposited with NCBI

S. No	Accession	Organisms
1	HQ848274.1	<i>Exiguobacterium</i> sp. AFB-18
2	HQ848273.1	<i>Bacillus licheniformis</i> strain AFB-15
3	HQ848272.1	<i>Exiguobacterium aurantiacum</i> AFB-13

4	HQ848271.1	<i>Bacillus licheniformis</i> strain AFB-12
5	HQ848270.1	<i>Citricoccus alkalitolerans</i> strain AFB10
6	HQ848269.1	<i>Pseudomonas</i> sp. AFB-9
7	HQ848268.1	<i>Bacillus</i> sp. AFB-6
8	HM449701.1	<i>Dietzia</i> sp. PCSB5
9	HM449700.1	<i>Gordonia</i> sp. PCSB4
10	GQ288406.1	<i>Bacillus oleronius</i> strain SJC04.edm
11	GQ288405.1	<i>Bacillus oleronius</i> strain SJC03.ost.edme
12	GQ288404.1	<i>Roseomonas</i> sp. sjc02.ost.edme
13	GQ288403.1	<i>Bacillus</i> sp. sjc01.ost.em
14	HM449703.1	<i>Microbacterium testaceum</i> strain PCSB7
15	HM449702.1	<i>Micrococcus luteus</i> strain PCSB6
16	HM449699.1	<i>Micrococcus</i> sp. PCSB3
17	HM449698.1	<i>Bacillus cereus</i> strain PCSB8
18	HM749895.1	<i>Micrococcus luteus</i> strain PCSB9
19	HM012706.1	<i>Bacillus oleronius</i> strain PCSB2
20	HM012705.1	<i>Brevibacterium casei</i> strain PCSB1
21	GU971729.1	<i>Pseudomonas geniculata</i> strain AFB 7
22	GU971728.1	<i>Pseudomonas putida</i> strain AFB 3
23	GU971727.1	<i>Stenotrophomonas maltophilia</i> strain AFB 2
24	GU971726.1	<i>Bacillus halodurans</i> strain AFB 1
25	JQ923487	Glutamate 5- Semialdehyde dehydrogenase
26	JQ923488	Alanine transaminase transcriptional regulator
27	GU971727.1	<i>Stenotrophomonas maltophilia</i> strain AFB 2
28	JQ923489	Putative acyl-[acyl-carrier protein] desaturase
29	JQ923490	Putative deltaaminolevulinic acid dehydratase
30	JQ923491	Putative uroporphyrinogen-III synthetase
31	JQ923492	Hypothetical Sugar diacid regulator
32	HQ848274.1	<i>Exiguobacterium</i> sp. AFB-18
33	HQ848268.1	<i>Bacillus</i> sp. AFB-6
34	HQ848269.1	<i>Pseudomonas</i> sp. AFB-9
35	JQ923493	Unknown Patatin like phospholipase





36	JQ923494	SSS Family solute/sodium (Na <sup>+</sup> ) symporter
37	MF289386	Uncultured Brevibacterium sp. clone MJC01
38	MF289387	Uncultured Bacillus sp. clone MJC02
39	MF289388	Uncultured Bacillus sp. clone MJC03
40	MF289389	Uncultured Brevibacterium sp. clone MJC04
41	MF289390	Uncultured bacterium clone MJC05
42	MF289391	Uncultured Bacillus sp. clone MJC06
43	MF289392	Uncultured Bacillus sp. clone MJC07
44	MF289393	Uncultured Bacillus sp. clone MJC08
45	MF289394	Uncultured Bacillus sp. clone MJC09
46	MF289395	Uncultured Bacillus sp. clone MJC10
47	MF289396	Uncultured Bacillus sp. clone MJC11
48	MF289397	Uncultured bacterium clone MJC12
49	MF289398	Uncultured Brevibacterium sp. clone MJC13
50	MF289399	Uncultured Bacillus sp. clone MJC14
51	MF289400	Uncultured Bacillus sp. clone MJC15
52	MF289401	Uncultured Bacillus sp. clone MJC16
53	MF289402	Uncultured Bacillus sp. clone MJC17
54	MF289403	Uncultured Bacillus sp. clone MJC18
55	MF289404	Uncultured Streptomyces sp. clone MJC19
56	MF289405	Uncultured Streptomyces sp. clone MJC20
57	MF289406	Uncultured Streptomyces sp. clone MJC21
58	MF289407	Uncultured Streptomyces sp. clone MJC22
59	KX059328	Uncultured bacterium clone MN04
60	KX059329	Uncultured bacterium clone MN02
61	KX059330	Uncultured bacterium clone RAZ02
62	KX059331	Uncultured Bacillus sp. clone RAZ01
63	KX059332	Uncultured Bacillus sp. clone RAZ03
64	KX059333	Uncultured bacterium clone MAV04
65	KX059334	Uncultured Pseudomonas sp. clone MAV03
66	KX059335	Uncultured Acinetobacter sp. clone MAV01
67	KX059336	Uncultured Pseudomonas sp. clone MAV02

68	KX059337	Uncultured bacterium clone MA05
69	KY864923	<i>Enterobacter hormaechei</i> strain E08
70	KY873311	<i>Stenotrophomonas maltophilia</i> strain F08
<b>FUNGAL DNA SEQUENCES (internal transcribed spacer 1, partial sequence; 5.8S ribosomal RNA gene, complete sequence; and internal transcribed spacer 2, partial sequence)</b>		
71	KU837244.1	<i>Rhizopus oryzae</i> strain SJCBT-F06
72	KU837242.1	<i>Bipolaris oryzae</i> strain SJCBT-F04
73	KU837241.1	<i>Fusarium sacchari</i> strain SJCBT-F02
74	KU837240.1	<i>Thielaviopsis paradoxa</i> strain SJCBT-F03
75	KU837239.1	<i>Acremonium fusidioides</i> strain SJCBT-F01

## EXPERTISE IN TECHNIQUES

### *Molecular Biology techniques*

Plasmid DNA isolation from Bacteria

Bacterial genomic DNA isolation

Agarose gel electrophoresis of DNA

Genomic DNA isolation from Animal tissue

Genomic DNA isolation from Blood

Genomic DNA isolation from Plants

Restriction digestion and Ligation

Polymerase Chain Reaction

Bacterial transformation by PEG method

Gel documentation

### *Protein purification & Analytical methods*

Purification of IgY from chicken egg yolk by Anion exchange Chromatography

SDS-PAGE

Silver staining of proteins

Protein Blotting

Concentration of proteins by dialysis against PVP, Sephadex and PEG 20000



### *Immunology techniques*

Bleeding from chicken wing vein  
Isolation of mouse peritoneal macrophage  
Isolation of mouse bone marrow cells  
Immuno-electrophoretic techniques  
Immunodiffusion techniques  
ELISA  
Hemagglutination assay

### *Biprocess technology*

Solid state fermentation  
Enzyme and cell immobilization  
Optimization of Fermentation media

### *Bioinformatics*

Sequence Mining and analysis  
Sequence alignment and primer design  
Computational gene identification

### **PERSONAL DETAILS**

Date of birth: 16.04.1978

Age: 41Yrs

Nationality: Indian

Religion: Christian