

## **FACULTY PROFILE**



<i>Name</i>	<i>Dr. R. Betsy Clarebel</i>
<i>Designation</i>	<i>Assistant Professor</i>
<i>Department</i>	<i>Chemistry</i>
<i>Date of Birth</i>	<i>17.09.1993</i>
<i>Date of Appointment</i>	<i>01.08.2024</i>

**Area of Specialization** : *Physical Chemistry & Biological Oxidation*

**Personal Affiliation** : *JACSFA Committee member*

*Fine arts Committee member*

*Discipline Committee member*

*Equal Oppurtunity cell Committee member*

### **Academic Records**

<b>Degree/Course</b>	<b>Name of the Institution/ University / Board</b>	<b>Subject</b>	<b>Mark/ Grade</b>	<b>Awards/ Distinction</b>
<b>TNSET 2018</b>	Mother Teresa Women's University, Kodaikanal	Chemical Sciences	<b>Qualified</b>	<b>Qualified</b>
<b>Ph.D. Chemistry</b>	St. Joseph's College (Autonomous), Bharathidasan University Tiruchirappalli.	Chemistry	<b>Completed Ph.D Viva Voce on 8<sup>th</sup> July 2020</b>	<b>Qualified with Highly commended</b>
M.Sc. Chemistry April 2016	St. Joseph's College (Autonomous), Bharathidasan University Tiruchirappalli.	Chemistry	<b>82.63 %</b>	<b>First Class with Distinction</b>
B.Sc. Chemistry April 2014	Holy Cross College (Autonomous), Bharathidasan University Tiruchirappalli.	Chemistry	<b>85.45 %</b>	<b>First Class with Distinction</b>
HSC 1 <sup>st</sup> group (Bio Maths) March 2011	St. Joseph's Anglo-Indian Girls Higher Secondary School, Tiruchirappalli. State Board.		<b>79.80 %</b>	<b>Distinction</b>
SSLC March 2009	St. Joseph's Anglo-Indian Girls Higher Secondary School, Tiruchirappalli. Anglo Indian Board.		<b>91.60 %</b>	<b>Outstanding</b>

*Title of Ph.D. Thesis*

**“Biomimic Oxidation of some amino acids, carbohydrates, hydroxyacids and drugs by Enzyme Peroxidase”**

*Awards/ Merit Certificates– 11*

S.No	Certificates Of Merit	Subject	Year
1	<b>Best Research Scholar award</b>	<b>Chemistry, School of Physical Sciences</b>	<b>175<sup>th</sup> College Day, 15<sup>th</sup> March 2019</b>
2	<b>Project Applied to TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY</b>	<b>PROGRAMME FOR BRIDGING THE GAP IN RESEARCH FUNDING FOR RESEARCH SCHOLARS IN COLLEGES (RERS) (2018 – 2019)</b>	<b>(2018 – 2019)</b>
3	<b>PG Rank Holder award</b>	<b>First Rank, M.Sc Chemistry, I-IV Semesters</b>	<b>Graduation Day, 8<sup>th</sup> January 2017</b>
4	<b>Fr Mathew J Moolal SJ Medal</b>	<b>For Best Outstanding In Studies, M.Sc Chemistry, I-IV Semesters</b>	<b>Graduation Day, 8<sup>th</sup> January 2017</b>
5	<b>Shri R Govindarajan Memorial Cash Award</b>	<b>For Best Outstanding In Studies, M.Sc Chemistry, I-IV Semesters</b>	<b>Graduation Day, 8<sup>th</sup> January 2017</b>
6	<b>Raja Sri Annamalai Chettiyar Medal</b>	<b>First Rank- IV Semester</b>	<b>Graduation Day, 8<sup>th</sup> January 2017</b>
7	<b>Shri S Kuppuswamy Memorial Gold Medal&amp;Cash Award</b>	<b>For Best Outstanding In Studies, M.Sc Chemistry</b>	<b>Heritage College Day, 16<sup>th</sup> March 2016</b>
8	<b>Dr K Nambi Endowment Cash Award</b>	<b>For Best Outstanding In Studies, M.Sc Chemistry</b>	<b>Heritage College Day, 16<sup>th</sup> March 2016</b>
9	<b>Fr A Felix Joseph SJ Medal</b>	<b>For Best Outstanding In Studies, M.Sc Chemistry, First Rank-III Semester</b>	<b>Heritage College Day, 16<sup>th</sup> March 2016</b>
10	<b>Thiru Jerome Pitchai Medal</b>	<b>For Best Outstanding In Studies M.Sc. Chemistry, First Rank- II Semester</b>	<b>Heritage College Day, 16<sup>th</sup> March 2016</b>
11	<b>College Management Medal</b>	<b>M.Sc Chemistry, First Rank- I Semester</b>	<b>171<sup>st</sup> College Day, 18<sup>th</sup> March 2015</b>

## ***List of Papers Published in International and National Journals***

### **International journals –11**

### **National journal – 4**

<b>S.No</b>	<b>First Author/ Author</b>	<b>Title</b>	<b>Journal</b>	<b>Page No</b>	<b>Impact factor</b>	<b>International/National</b>
1	R.Betsy Clarebel	Biological Oxidation Behaviour of Cobalt $\mu$ -Peroxo Complex on L-Asparagine -A Kinetical View	THINK INDIA (quarterly journal)	Vol-22- Issue-4- Oct-Dec-2019	5.9	International (UGC CARE) listed Journal
2	R.Betsy Clarebel	“Biological Oxidative Activity of L-Glutamine by Peroxo Complex - A Biomimetic Approach”	ADALYA JOURNAL	volume 8, issue 10, Oct- 2019	5.3	International (UGC CARE) listed Journal, (Web of Science)
3	R.Betsy Clarebel	A Kinetic Enquiry On The Biological Oxidation Of Fructose By $\mu$ -Peroxo Complex	THINK INDIA (quarterly journal)	Vol-22- Issue-4- Oct-Dec-2019	5.9	International (UGC CARE) listed Journal
4	R.Betsy Clarebel	“Oxidation Aspect of Sucrose by Cobalt Peroxo Complex - A biomimic and kinetic Study”	ADALYA JOURNAL	volume 8, issue 10, Oct- 2019	5.3	International (UGC CARE) listed Journal, (Web of Science)
5	R.Betsy Clarebel	A Kinetical Investigation on the Biological Oxidation of Fructose by $\mu$ -Peroxo Complex	International Journal of Research and Analytical Reviews (IJRAR)	Vol.5, Iss. 4, 2018 915-918	5.75	International
6	R.Betsy Clarebel	A Biomimic Oxidation Behaviour of Cobalt $\mu$ -Peroxo Complex on L-Asparagine –A Kinetical Approach	Journal of Emerging Technologies and Innovative Research (JETIR)	Vol. 5, Iss. 9, 2018 370-373	5.87	International
7	R.Betsy Clarebel	Inhibitive Properties Of Sodium Molybdate–Zn <sup>2+</sup> System And Its Synergism With Garlic Extract	World Journal Of Pharmacy And Pharmaceutical Sciences	Vol. 5, Iss. 10, 2016 921-938	6.041	International
8	R.Betsy Clarebel	Corrosion Inhibition Of Carbon Steel In Well Water By Trisodium Citrate – Cu <sup>2+</sup> As Inhibitor	World Journal Of Pharmacy And Pharmaceutical Sciences	Vol. 6, Iss. 12, 2017, 642-659	6.647	International
9	R.Betsy Clarebel	Inhibition Of Corrosion Of Carbon Steel In A Well Water By Sodium Molybdate– Zn <sup>2+</sup> - A Phosphonic Acid System	Researcher	Vol. 7, Iss. 3, 2015, 66-73		International
10	R.Betsy Clarebel	Role Of Zinc Ions In Increasing Corrosion Inhibition Efficiency	Researcher	Vol. 7, Iss. 3, 2015, 74-86		International

11	R.Betsy Clarebel	Influence of Aloe vera Extract on Corrosion Inhibition of Mild Steel in Well Water	RETELL St. Joseph's College,	Vol. 15,P19		National
12	R.Betsy Clarebel	Influence of Glucon – D Drink Taken Orally in the Occupancy of Synthetic Oral Fluid on the Decay Protection of Ss18/8 Arch Wire	Indian Journal of Natural Sciences	Vol. 16, Iss. 94, 2026, ISSN : 0976-0997	3.078	National
13	R.Betsy Clarebel	Mineral analysis of sediment samples collected along the Krusadai – Rameswaram island, Gulf of Mannar, Tamil Nadu, India	Arul Anandhar Journal of Arts and Science	Vol. 1, Feb 2026		National
13	R.Betsy Clarebel	Effect of Rasna Liquid Orally Consumed on the Corrosion Protection of Orthodontic Arch Wire Made of SS 18/8 Alloy in Presence of Artificial Salivary Environment	Indian Journal of Natural Sciences	Vol. 17, Iss. 95, 2026, ISSN : 0976-0997	3.078	National
14	R.Betsy Clarebel	Formulation and Optimization of a Polyherbal Gel Using Quality by Design Approach for Enhanced Wound Healing and Anti-Inflammatory Activity	International Journal of Drug Delivery Technology	Vol. 16, Iss. 31s, 2026, P357-364	1.2	International

### ***Book Publication***

S.No	First Author/ Author	Title of the Book	Title of the Chapter	Journal	Page No	International/National
1	R.Betsy Clarebel	Nanotechnology in the Beverage Industry	Instant beer	<b>Elsevier</b>	(pp.687-701)	International (SCOPUS INDEXED)
2	R.Betsy Clarebel	Text book of Pharmaceutical Organic Chemistry - III	Five chapters	Shashwat Publication	ISBN : 978-93-7462-536-1	National

### ***Papers Presented in Conferences –12***

S.No	Title	Name of the Conference	Date and place	International/National
1	Biomimetic oxidation studies of Fructose by ethylenediamine $\mu$ -peroxo complex in aqueous medium.	National conference on advanced materials in chemistry (NCAMC'18)	8 <sup>th</sup> February, 2018 St. Joseph's College, Trichy,	National
2	An Approach To Study The Oxidation Kinetics Of Glycine By Amine $\mu$ - Peroxo Complex In Aqueous Medium.	National conference on advanced materials in chemistry (NCAMC'18)	8 <sup>th</sup> February, 2018 St. Joseph's College, Trichy,	National
3	A Generalised Biomimetic Kinetics Of Oxidation Of L-Serine By Cobalt $\mu$ -Peroxo Complex in aqueous medium	National Conference on "Advances in Applied Chemistry"	14 <sup>th</sup> December, 2018 St. Joseph's College, Trichy.	National

4	A Kinetical Investigation On The Biological Oxidation Of Sucrose By $\mu$ -Peroxo Complex.	4 <sup>th</sup> International conference on chemical and environmental research (ICCER-2018)	19 <sup>th</sup> December, 2018 Jamal Mohamed College, Trichy.	International
5	A Kinetical Approach On The Oxidation Behaviour Of Cobalt $\mu$ -Peroxo Complex On L-Asparagine -A Biomimic Model System.	National conference on “Nano National Summit- Current trends and future perspectives” (NNSCTFP-2019)	9 <sup>th</sup> and 10 <sup>th</sup> January 2019 Holy Cross College, Trichy.	National
6	Kinetic Analysis Of Oxidation Of L-Glutamine By Cobalt $\mu$ -Peroxo Complex In Aqueous Medium.	National Conference on Recent Developments in Materials AND Chemical Sciences (RDMCS- 2019)	28 <sup>th</sup> February 2019 BWDA Arts and Science College, Kolliyangunam.	National
7	A Kinetical Inquiry On the Biological Oxidation Of D-Maltose By Cobalt $\mu$ -Peroxo Complex In Aqueous Medium.	A Two Day National Conference on “Recent Innovations in Phytochemistry” (RIPC-2019)	21 <sup>st</sup> and 22 <sup>nd</sup> August, 2019 J.J. College of Arts and Science, Pudukkottai.	National
8	The Biological Oxidation Activity Of Cobalt $\mu$ -Peroxo Complex On D-L-Malic acid -A Kinetical Biomimetic View.	International Conference on “New Vistas in Material Science (NVMS-2019)”	12 <sup>th</sup> September, 2019 Seethalakshmi Achi College for Women, Pallathur.	International
9	Biological Oxidation of Mandelic acid by $\mu$ - Peroxo Complex – A kinetic method.	One day National Conference on “Frontiers of Material Science (NCFMS-19)	13 <sup>th</sup> December, 2019, St. Joseph’s College, Trichy.	National
10	Potential Applications of a Tailored Bioactive Schiff Base Ligand Derived from Curcumin- Aspartic Acid and its Metal Complexes	International Conference on Chemistry Innovation: Current Developments, Challenges and Future Perspectives (ICCI-25)	15 <sup>th</sup> & 16 <sup>th</sup> Sep,2025, St. Joseph’s College (Autonomous) and Bishop Heber College (Autonomous), Tiruchirappalli.	International
11	Enzyme – Mimicking Cobalt $\mu$ -Peroxo Complex for sustainable oxidation of D – Maltose : Kinetic and Bioactivity Insights	International Conference on Chemistry Innovation: Current Developments, Challenges and Future Perspectives (ICCI-25)	15 <sup>th</sup> & 16 <sup>th</sup> Sep,2025, St. Joseph’s College (Autonomous) and Bishop Heber College (Autonomous), Tiruchirappalli.	International
12	Mechanistic insights into the Cobalt $\mu$ -peroxo mediated oxidation of Paracetamol	NATIONAL SEMINAR ON RECENT TRENDS IN CHEMISTRY (RTC - 11)	Organised by the PG and Research Center of Chemistry, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam on 28 <sup>th</sup> January, 2026.	National

### ***Workshop / FDP Attended***

- Participated in the One-week Faculty Development Program on “Computational and Experimental Insights into Materials Research (CEIMR - 2025) Organized by the Department of Physics and Chemistry (S&H), JB Institute of Engineering and Technology, Hyderabad.
- Participated in the seven days Faculty Development Program on " The Future of Teaching and learning through AI-Infused Digital Education" Organized by PRIMAX FOUNDATION, Bengaluru, Karnataka, India.
- Participated in the SERB-ANRF-sponsored Five days Hybrid FDP Workshop on "Sustainable Hydrogen Production And Integration Of Hydrogen Technologies". Under the Scientific Social Responsibility (SSR) Initiative, Organized by Sustainable Energy Technology Laboratory, Department of Mechanical Engineering PDPM Indian Institute of Information Technology, Design and Manufacturing, Jabalpur (M.P).
- Successfully completed the Five-day International Virtual Faculty Development Programme (IVFDP) on Harnessing Generative AI: Smart tools for Teaching and Learning, Evaluation & Research (TLE&R). Organized by the Department of Computer Science, St. Joseph's College, Trichy.
- Participated in 7 days National Level Short Term Training Programme (online) on “Reimagining Classrooms: Innovative Pedagogies for Engaged and Outcome-Based Learning” held from 5th November 2025 to 12th November 2025, organized by the PG Department of Computer Science, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam and Department of Computer Science, Teresian College, Mysuru.
- Attended One Day National Level Research e-Workshop on "Tools and Techniques used in Research Reports and Scientific Writing Challenges & Emerging Guidance" on 28.02.2026 organized by A.C.T Academy, Palakkad, Kerala & Tamil Nadu. Dr. S. Gomathi Meena, Assistant Professor, Department of Computer Applications, Faculty of Science and Humanities, SRM Institute of Science and Technology, Kattankulathur, Chengalpet, Tamil Nadu, served as resource person.
- Completed the NEP 2020 Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC) organized by The Gandhigram Rural Institute - DTBU, Gandhigram from 05.01.2026 to 13.01.2026.
- Participated in the Six-Day Online Faculty Development Program on "Smart Chemistry for a Smart Generation (A Gen Z Perspective)" organized by the Department of Chemistry, St. Joseph's College (Autonomous), Tiruchirappalli from 15th to 20th December 2025.
- Successfully completed the "5th Faculty Induction Program (online)"with Grade "A+" under Malaviya Mission Teacher Training Programme (MMTTP) of UGC held from 27th April to 25th May 2026, organized by Malaviya Mission Teacher Training Centre of Shri Mata Vaishno Devi University, Katra, J&K.

### ***NPTEL Course Completed***

- Successfully completed the course on “Biological Inorganic Chemistry” 12 week course Jul-Oct 2025

### ***Co-curricular activities***

- Participated in “**Rangeela Eco Friendly Bag**” event and name was entered in “**Limca Books of Records**”-2011.
- Won **2<sup>nd</sup> Prize** in Group song (**Indian**) in **INDEP’14** - St.Joseph’s College, Tiruchirappalli.
- Won **3<sup>rd</sup> Prize** in Group song (**Indian**) in **INDEP’15-16** - St.Joseph’s College, Tiruchirappalli.
- Won **3<sup>rd</sup> Prize** in Group song (**Western**) in **INDEP’15-16** - St.Joseph’s College, Tiruchirappalli.
- Won **3<sup>rd</sup> Prize** in Classical Vocal (**Solo**) in **INDEP’15-16** - St.Joseph’s College, Tiruchirappalli.
- Completed **Diploma in Computer Application (DCA)** with **First Class** with basic computer knowledge, 2016.
- Participated in the **State Level Preparative Workshop in Chemistry (PWC-17)** for the **NET/GATE Aspirants-2017** organized by Dept. of Chemistry, St.Joseph’s College, Tiruchirappalli.
- Participated in the National Conference on “**RECENT ADVANCES IN CHEMISTRY AND RESEARCH AND ITS APPLICATIONS**” (**NCRACRIA-17**) on 19<sup>th</sup> Jan 2017, Dept of Chemistry, St.Joseph’s College, Tiruchirappalli.
- Participated in the International Conference on “**Frontiers in Advanced Materials and their Applications**” on 9<sup>th</sup> Jan 2018, held at Bishop Heber College, Tiruchirappalli-17.
- Participated in the seminar on “**Research Productivity and Plagiarism**” on 29<sup>th</sup> Jan 2018, St.Joseph’s College, Tiruchirappalli.
- Participated in the seminar on “**RESEARCH ETHICS**” on 15<sup>th</sup> Oct 2018, St.Joseph’s College, Tiruchirappalli.
- **Acted as Resource person** in the **Regional Workshop on Micro level Chemical Analysis** conducted from 4<sup>th</sup> to 7<sup>th</sup> September 2019 at Dept. of Chemistry, St.Joseph’s College, Tiruchirappalli.
- Participated in the seminar on “**Dynamics of Research Quality**” on 15<sup>th</sup> Oct 2019, St.Joseph’s College, Tiruchirappalli.
- Participated in the **5 Km SJC175<sup>th</sup>year MARATHON’ 19 – RUN FOR YOUR FAVORITE TEACHER** held on 22<sup>nd</sup> September, 2019.

### ***Meritorious curriculum***

***Graduated in Classical Vocal Singing from Kalai Kaveri College of FineArts.***

### ***Contact Details***

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