FACULTY MEMBER ACADEMIC PROFILE

1. **Name of the Faculty member:** **RUBINA RAHAMAN**
2. **Designation:** Assistant Professor in Chemistry (W.B.E.S.)
3. **Qualification:** M.Sc. (University of Calcutta)
4. **Specialization:** Inorganic Chemistry
5. **E-mail address:** rubinarahaman.chem@gmail.com
6. **Date of Joining in W.B.E.S.:** 04.05.2018
7. **Date of Joining in this College:** 04.05.2018
8. **Total Teaching experience in College level:** 15+ days
9. **Research interests:** Synthesis of biomimetic iron complexes as functional models of the C-C bond cleaving nonheme oxygenases, development of nonheme iron catalysts for bioinspired oxidations using dioxygen as the terminal oxidant and theoretical studies using quantum chemical density functional theory (DFT) based approaches.
10. **Title of thesis (Ph.D.) with year:** "Biomimetic Models of C-C Bond Cleaving Nonheme Oxygenases: Reactivity and Mechanistic Studies" (submitted in March, 2018)
11. **Research guidance:** Nil
12. **Research Projects (Completed and ongoing):** Nil
13. **List of publications:**

Published papers in Journals:

1. "Aliphatic C-C Bond Cleavage of α-Hydroxy Ketones by Nonheme Iron(II) Complexes: Mechanistic Insight into the Reaction Catalyzed by 2,4′-Dihydroxyacetophenone Dioxygenase", **R. Rahaman**, S. Paria and T. K. Paine, *Inorg. Chem.* **2015**, 51, 10576-11586 [ISSN 1520-510X; **IF: 4.857**].
2. "Mimicking the Aromatic Ring Cleavage Activity of Gentisate1,2-Dioxygenase by a Nonheme Iron Complex", **R. Rahaman**, B. Chakraborty and T. K. Paine, *Angew.Chem.Int.Ed.* **2016**, 55, 13838-13842 [ISSN 1521-3773; **IF: 11.994**].
3. "Aliphatic C-C Bond Cleavage in α-Hydroxy Ketones by a Dioxygen-Derived Nucleophilic Iron-Oxygen Oxidant", S. Bhattacharya, **R. Rahaman**, S. Chatterjee and T. K. Paine, *Chem. Eur. J.* **2017**, 23, 3815-3818 [ISSN 1521-3765; **IF: 5.317**].
4. "Bioinspired Oxidation of 1-Aminocarboxylic Acids by a Nonheme Iron(II) Complex: Mimicking the Activity of 1-Aminocyclopropane-1-Carboxylic Acid Oxidase", **R. Rahaman** and T. K. Paine, **2018**, *Manuscript Under Review.*
5. "Role of Supporting Ligand on the Dioxygen Reactivity of Ternary Iron(II)-Gentisate Complexes: Aromatic C-C Cleavage vs Oxidative Coupling of Co-ligand", **R. Rahaman**, S. Munshi, S. Banerjee, B. Chakraborty, S. Bhunia and T. K. Paine, **2018**, *Manuscript Submitted.*

6. "Aliphatic C-C Bond Cleavage of 1,2-Diols with Dioxygen by a Nonheme Iron Complex", **R. Rahaman**, S. Bhattacharya and T. K. Paine, *Manuscript Under Preparation*.

14. **Membership of Learned Societies/ Editorial Boards, etc.:** Nil

15. **Patents:** Nil

16. **Awards:**

1. All India Rank 008 in the National Eligibility Test (NET) held in June, 2011.
2. Junior Research Fellowship (JRF) and Senior Research Fellowship (JRF) funded by CSIR from 2012-2016.

17. **Other notable activities:** Nil

18. **Participation in Seminars/Symposia/Conferences/Workshops:**

1. **Presented a Poster** entitled "*Aliphatic C-C Bond Cleavage of α-Hydroxy Ketones by Nonheme Iron(II) Complexes: Mechanistic Insight into the Reaction Catalyzed by 2,4' - Dihydroxyacetophenone Dioxygenase*" in the 17th **CRSI National Symposium** in Chemistry (NSC-17), held at **National Chemistry Laboratory, Pune**, India on **6-8th February, 2015**.
2. **Presented a Poster** entitled "*Oxygen Dependent Aromatic Ring Cleavage of Gentisic Acid by a Nonheme Iron Complex: Functional Model of Gentisate-1,2-Dioxygenase*" in the 19th **CRSI National Symposium** in Chemistry (NSC-19), held at North Bengal University, Darjeeling, West Bengal, India on **14-16th July, 2016**.
3. Participated in the 5th **Symposium on Advanced Biological Inorganic Chemistry** (SABIC-2017), organised by Indian Association for the Cultivation of Science and Tata Institute of Fundamental Research (TIFR), Kolkata, India on **7-11th January, 2017**.
4. **Presented a paper (Oral Presentation)** entitled "*Mimicking the Aromatic-Ring-Cleavage Activity of Gentisate-1,2-Dioxygenase by a Nonheme Iron Complex*", in a Seminar held in the Department of Inorganic Chemistry, Indian Association for the Cultivation of Science, Kolkata, India on **7-8th March, 2017**.