

**Doctor of Philosophy (PhD) through ‘Research  
Partnership Program’ offered by the TCG-CREST and  
Department of Chemical Sciences, IISER Kolkata**

Ph.D. Advertisement for Spring Semester 2023

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The Department of Chemical Sciences (DCS) at IISER Kolkata and the TCG-CREST invite applications for regular Ph.D. programme in the Spring Semester, 2023 in the discipline of Chemistry.

**Minimum Eligibility Criteria:** Bright and motivated candidates who have passed M.Sc. examination with minimum 55% marks in any field of Chemistry or Physics. Besides satisfying minimal eligibility criteria, the candidates should have CSIR/UGC-NET **JRF**, **INSPIRE** fellowship or other **Equivalent Fellowships**.

In addition, the candidates who have valid **GATE** Score Card, CSIR/UGC-NET **LS** or other Equivalent National Eligibility Exam. may also apply for the PhD program through **TCG-CREST** funded fellowships (as per Govt. of India norm).

\*Please note that fulfilling the minimum essential criteria does not ensure that a candidate will be called for the interview. **Additional** short-listing criteria might be set by the department based on academic records, experience and research interest of the candidates.

\*\*Reservations for SC/ST/OBC/EWS/DIVYANG candidates are applicable as per Government of India rules.

Interview Dates: **November 25-26, 2022**

**Mode of Interviews:** The mode of interview will be ‘**Off-line**’ for better interactions with the students appearing for the PhD interview. However, a candidate may be allowed for an online interview, if sufficient justifications is/are provided.

Please see below details of faculty members who are interested in admitting students under the ‘Research Partnership Program’:

**Dept. of Chemical Sciences, IISER Kolkata**

<b>Faculty Name</b>	<b>Research Area</b>	<b>Webpage</b>	<b>Position</b>
<b>Rahul Banerjee</b>	Development of Porous Cathodes for Li-ion Batteries	<a href="https://www.iiserkol.ac.in/web/en/people/faculty/dcs/r-banerjee/#gsc.tab=0">https://www.iiserkol.ac.in/web/en/people/faculty/dcs/r-banerjee/#gsc.tab=0</a>	01
<b>Sayan Bhattacharyya</b>	Antiperovskite systems for energy applications or Mixed dimensional heterostructures as photocatalysts and electrocatalysis	<a href="https://www.iiserkol.ac.in/~sayanb/">https://www.iiserkol.ac.in/~sayanb/</a>	01
<b>Alakesh Bisai</b>	Development of Cost-Effective and Non-Flammable based Non-Aqueous Electrolyte for Effective Li-Metal and Na-Metal Deposition. and/or Multielectron Redox Based Designing and Synthesis of High Energy Density Organic Molecules and Frameworks for Battery Applications.	<a href="https://www.iiserkol.ac.in/~alakesh/">https://www.iiserkol.ac.in/~alakesh/</a>	01
<b>Venkatraman Mahalingam</b>	Green Hydrogen (H <sub>2</sub> ) or Carbondioxide (CO <sub>2</sub> )/ Nitrogen (N <sub>2</sub> ) Reduction	<a href="https://www.iiserkol.ac.in/~nanolab/">https://www.iiserkol.ac.in/~nanolab/</a>	01

**TCG-CREST, Kolkata:**

<b>Faculty Name</b>	<b>Research Area</b>	<b>Webpage</b>	<b>Position</b>
<b>Abhik Banerjee</b>	<p>1. Development of cost effective and non-flammable based non-aqueous electrolyte for effective Li metal and Na metal deposition.</p> <p>2. Designing and synthesis of Inorganic Li and Na based halide solid electrolytes for high energy density solid state battery applications.</p> <p>3. Multielectron redox based designing and synthesis of high energy density Organic molecules and frameworks for Battery applications.</p>	<a href="https://www.tcgcrest.org/news/interview-of-abhik-banerjee-rise-tcg-crest/">https://www.tcgcrest.org/news/interview-of-abhik-banerjee-rise-tcg-crest/</a>	04
<b>Bidisa Das</b>	<p>1. Antiperovskite systems for energy applications</p> <p>2. Mixed dimensional heterostructures as photocatalysts and electrocatalysis</p>	<a href="https://www.tcgcrest.org/people/dr-bidisa-das/">https://www.tcgcrest.org/people/dr-bidisa-das/</a>	02