# Filed Patent Details for the year 2018-19

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Patent Application Number</th>
<th>Title</th>
<th>Inventor(s)</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>201831022071</td>
<td>Soya lecithin quantum dots as antiagglomerants and methodology of preparing the same</td>
<td>Prof. Vikas Mahto</td>
<td>Petroleum Engineering</td>
</tr>
<tr>
<td>2</td>
<td>201831022160</td>
<td>Biopolymeric Super absorbent hydrogel and its preparation thereof</td>
<td>Prof. Sagar Pal</td>
<td>Department of Chemistry</td>
</tr>
<tr>
<td>3</td>
<td>201831008017</td>
<td>Novel System for regenerating and reusing nZVI/ZVI Particles in waste water treatment.</td>
<td>Prof. Alok Sinha</td>
<td>Environmental Science &amp; Engineering</td>
</tr>
<tr>
<td>4</td>
<td>201831026697</td>
<td>Process for the preparation of Noval sunflower oil derived gemini surfactants of non-ionic nature and compositions thereof for enhanced oil recovery application.</td>
<td>Prof. Ajay Mandal</td>
<td>Petroleum Engineering</td>
</tr>
<tr>
<td>5</td>
<td>201831036761</td>
<td>A process for preparation of cyclic/acyclic alkenes</td>
<td>Ms. Sneha Shah, Prof. Biswajit Chowdhury</td>
<td>Department of Chemistry</td>
</tr>
</tbody>
</table>

# Published Patent Details for the year 2018-19

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Patent Application Number</th>
<th>Title</th>
<th>Inventor(s)</th>
<th>Department</th>
<th>Publication Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>201631037159</td>
<td>A process for the preparation of bio-coagulant using Moringa oleifera seed biomass for the removal of fine particles from coal washery effluent</td>
<td>Prof. S. R. Samadder, Gaurav Vilas Kapse</td>
<td>Environmental Science &amp; Engineering</td>
<td>05-04-2018</td>
</tr>
<tr>
<td>2</td>
<td>201631037148</td>
<td>Selective flocculation of iron</td>
<td>Prof. Sagar Pal, , Amit</td>
<td>Applied Chemistry</td>
<td>05-04-2018</td>
</tr>
<tr>
<td>No.</td>
<td>Project No.</td>
<td>Title</td>
<td>Authors</td>
<td>Department</td>
<td>Submission Date</td>
</tr>
<tr>
<td>-----</td>
<td>-------------</td>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>---------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>3</td>
<td>201731004136</td>
<td>Friction Stir welding joint sample machining apparatus &amp; method</td>
<td>Dr. Ratnesh Kumar, Prof. Somnath Chandepadyay</td>
<td>Mechanical Engineering</td>
<td>08-10-2018</td>
</tr>
<tr>
<td>4</td>
<td>201731017005</td>
<td>Low Power, portable smart device for real time monitoring of mine environment and methods thereof</td>
<td>Prof. Tanmoy Maity, Mayank Sharma</td>
<td>Mining Machinery Engineering</td>
<td>16-11-2018</td>
</tr>
<tr>
<td>5</td>
<td>201731023466</td>
<td>A high frequency virtual reactor in Power system with dispersed generators to control fault current and method of Operation.</td>
<td>Prof. Pradip Kumar Sadhu</td>
<td>Electrical Engineering</td>
<td>11.01.2019</td>
</tr>
<tr>
<td>6</td>
<td>201731025244</td>
<td>A system of photovoltaic integrated solar induction heating and solar thermal heating using high frequency full bridge series resonant inverter under VSI (Voltage Source Invertor) mode and method for the same.</td>
<td>Prof. Pradip Kumar Sadhu</td>
<td>Electrical Engineering</td>
<td>18.01.2019</td>
</tr>
<tr>
<td>7</td>
<td>201731028010</td>
<td>A system of Photovoltaic Integrated Solar Induction heating using high frequency full bridge series resonant Inverter under CSI (Current Source Inverter) mode and solar thermal heating and method for the same.</td>
<td>Prof. Pradip Kumar Sadhu</td>
<td>Electrical Engineering</td>
<td>08.02.2019</td>
</tr>
<tr>
<td>8</td>
<td>201731030886</td>
<td>&quot;Model-Predictive-Current-Control For Speed Regulation Of Brushless Doubly-Fed Reluctance Generator&quot;</td>
<td>Prof. Sukanta Das</td>
<td>Electrical Engineering</td>
<td>01.03.2019</td>
</tr>
</tbody>
</table>
A system of Photovoltaic Integrated Solar Induction heating and solar thermal heating using High Frequency Full Bridge Series Resonant Inverter under ZSI (Z-Impedance Source Inverter) Mode for Load Impedance Matching and method for the same

An arrangement for replacement of bypass diode by relay in a solar photovoltaic system.

Grant Patent Details for the year 2018-19

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Patent Number</th>
<th>Title</th>
<th>Inventor(s)</th>
<th>Department</th>
<th>Grant Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>293820 (887/KOL/2010)</td>
<td>A method and device for concentration of solar radiation and obtaining concentrated plane beam</td>
<td>Prof. Pankaj Kumar Jain,</td>
<td>Fuel, Mineral &amp; Metallurgical Engineering</td>
<td>05-03-2018</td>
</tr>
</tbody>
</table>