

**Book/Book chapter Published**  
**Department of Chemical Engineering**  
**2023-24**

1. **Sourav Poddar**, Kedar Sahoo, Uma Sankar Behera, Koushik Guha Biswas, and Krishna Deo Prasad Nigam, "Chapter -12: Conversion of waste materials and CO<sub>2</sub> into useful products", From Waste to Wealth, Springer Nature Singapore Pte Ltd, 2023 (Accepted).
2. **Sourav Poddar**, Uma Sankar Behera, "Chapter 2: Hybrid inorganic aerogels for CO<sub>2</sub> adsorption" Hybrid Aerogels, De Gruyter, Berlin, page 33 - 66, 2024. [ISBN No. 978-311-12-5135-6] (Accepted).

**2022-23**

1. **Siddhartha Sankar Boxi**, Smriti Mandal, Smritikana Phadikar, Soumen Pal and Suraj Rana, Precious Metal Recovery from Electronic Waste (E-waste) - A Review. Latest Aspects of Applied Sciences & Informatics: The Paradigm Shifting, New Delhi Publishers, New Delhi, India, Dec., 2022. ISBN: 978-93-93878-60-1.
2. Ripa Sutar, **Dr. Somak Jyoti Sahu, Dr. Lipika Das Samanta**, "Degradation of methylene blue through photocatalysis using synthesized ZnO/CeO<sub>2</sub> nanocomposite catalyst" Lecture Notes in Chemical Engineering and Material Sciences, IChE, Kolkata. [ISBN No: 978-93-5620-063-0]

**2021-22**

1. Y. Kumar, **L. Das**, and K. Guha Biswas, Chapter Name: "Biodiesel: Features, Potential Hurdles and Future Direction" Book Name: "Status and Future Challenges for Nonconventional Energy Sources" Volume 2, Chapter-5, Springer, Singapore, page 99-122, March, 2022. [ISBN 978-981-16-4508-2].

**2020-21**

1. **B. Bej**, N. C. Pradhan, S. Neogi, "Production of Hydrogen by Steam Reforming of Methanol over Novel Nano-Nickel Oxide based Catalyst" Lecture Notes in Bioengineering book series Springer, Singapore, page 405-414, 2020. [ISBN No. 978-981-15-7409-2]

## Patent

### Department of Chemical Engineering

#### 2023-24

1. Deepak Kumar Samal, Shakti Prasanna Khadanga, Gopendra Kishore Roy, Yashobanta Kumar Mohanty “Laminar Pipe Flow Observation Apparatus (LPFOA)”, Patent No. 494508 (application no. 201931049723), Grant date- 04.01.2024, (SL No :033131489:), From Intellectual Property India (GOV. of India).
2. **Patent Filed:** Patent Application No. **202431000061** dated 01.01.2024 entitled “IOT-ENABLE SMART WATER HEALTH MONITORING AND CONTROL SYSTEM USING LORAWAN COMMUNICATION FOR PISCICULTURE” in the names of **Dr. Biswajit Mandal**, Mr. Swarnajit Bhattacharya, Dr. Mrinmoy Sen, Dr. Asim Halder, Mr. Asit Kumar Nayek, Dr. Amit Biswas, Dr. Subrata Mondal, Dr. Sunil Baran Kuila, Dr. Sutapa Roy and Dr. Lipika Das Samanta.”, From Intellectual Property India (GOV. of India).
3. **Dr. Deepak Kumar Samal**, Dr. Gopendra Kishore Roy. Mr. Shakti Prasanna Khadanga, “Pressure Swing Rotating Bubble Cap (PSRBC)”, Patent No. 511825 (application no.201931023024), Grant date-16.02.2024, (SL No: 033133228), From Intellectual Property India (GOV. of India).

#### 2022-23

1. Biswajit Mandal, “Air Analyzing Cum Air Health Monitoring System” dated 03/03/2023 was also filed with application number 202331014510.

#### 2021-22

1. Kuila, S. B.; Mandal, B. Patent application No. 202231025760 dated 03-05- 2022 entitled “A NEW POLYMERIC IPN MEMBRANE FOR REGENERATIVE FUEL CELL, FUEL CELL AND PERVAPORATIVE SEPARATION” in the name of HALDIA INSTITUTE OF TECHNOLOGY Our Ref: 4692/ASA/PP-3520/HIT.