

The ongoing Research and Development (R&D) Projects of IFRD

S/N	Project Title	Project Leader and Associates	Duration
1	Production of Biodiesel from pithraj and leather fleshing	1. Sujit Kumar Banik(PSO), PL 2. Dr. Modhusudan Saha, PSO, LRI 3. Dr Md Saiful Islam, PSO 4. Taposhi Rabeya , SSO 5. Mohammad Asadullah Asad, SSO 6. Dr Nilima Afrozs Molla, SSO, LRI	Jul, 2020- Jun, 2022
2	Development of technology for production of Lube oil from heavy condensate of different gas field	1. Sujit Kumar Banik(PSO), PL 2. Dr Md Saiful Islam, PSO 3. Taposhi Rabeya , SSO	Jul, 2020- Jun 2022
3	Development of soft magnetic materials for electrical and electronic devices	1. Mashudur Raman , PSO, PL 2. Md Azizul Hoque, SSO 3. Syed Shafquat Mahmood, SO 4. Md Sadequl Azam, SO 5. Md Saidul Islam, SSO	Jul, 2020- Jun 2022
4	Design and development for solar photovoltaic power system	1. Md Sadequl Azam, SO, PL 2. Mshudur Raman , PSO 3. Md Saidul Islam, SSO 4. Md Abu Kowser, SSO 5. Sumon Chandra Debnath, SSO, PP & PDC 6. Md Azizul Hoque, SSO	Jul, 2020- Jun 2022
5	Incorporation of electronic hole transporting(HTL) for efficient and stable perovskite material	1. Mohammad Shah Jamal, PSO, PL 2. Muhammad Shahriar Bashar, PSO 3. Dr. Samia Tabassum, SSO 4. S.M. Asaduzzaman Sujon, PSO 5. Mosharof Hossain , PSO	Jul, 2020- Jun 2023
6	Design and development of indoor solar cooking system by evacuated tube collector	1. Dr. Samia Tabassum, SSO, PL 2. Sumon Chandra Debnath, SSO, PP & PDC 3. Ayesha Siddika, SO 4. Md Sadequl Azam, SO	Jul, 2020- Jun 2022

		5. Most. Nilufa Yeasmin, SO	
7	Development of photo catalyst for waste water treatment	1. Dr. Samia Tabassum, SSO, PL 2. Muhammad Shahriar Bashar, PSO 3. Sumon Chandra Debnath, SSO, PP & PDC 4. Ayesha Siddika, SO 5. Most. Nilufa Yeasmin, SO	Jul, 2020- Jun 2023
8	Study and evaluation of installed biogas plant under different biogas technology dissemination process of BCSIR	1. S.M. Asaduzzaman Sujon, PSO,PL 2. Mohammad Shah Jamal, PSO, PL 3. Mosharof Hossain , PSO	Jul, 2020- Jun 2023
9	Methane loss minimization and carbon dioxide recovery systems for water scrubbing based biogas up gradation	1. Mosharof Hossain , PSO, PL 2. Mohammad Shah Jamal, PSO, PL 3. .M. Asaduzzaman Sujon, PSO	Jul, 2020- Jun 2022
10	Pretreatment of corn stalk for enhancing biogas and other value added chemicals production	1. Dr Md Saiful Islam, PSO, PL 2. Taposhi Rabeya , SSO 3. Mohammad Asadullah Asad, SSO 4. Shawpon Kumar Ray, PSO, Dhaka Labs. 5. Dr Mohammad Majedul Haque 6. Dr. M Sarwar Hossain, CSO, Dhaka Labs.	2019-22
11	Production of Bioenergy from waste materials through Microbial Fuel Cell	1. Mosharof Hossain, PSO,PL 2. S.M Asaduzzaman Sujon, PSO 3. Dr Md Saiful Islam, PSO	Jul 2019- Jun 2021 ext
12	Design and development of energy efficient biogas cook stove	1. S.M.A Asaduzzaman Sujon, PSO, PL 2. Dr. Md Saiful Islam, PSO 3. Mosharof Hossain, PSO, 4. Taposhi Rabeya, SSO 5. Dr. Mohammad Shah Jamal, PSO	2019-21 ext
13	Baseline Determination on present solar power system in Bangladesh	1. Muhammad Shahriar Bashar, PSO, PL 2. Afrina Sharmin, SSO 3. Munira Sultana, SO	2019-22

		4. Syed Shafquat Mahmood, SO	
14	Development of a Novel Modeling and Simulation tool for solar cells	1. Abu Kawsar, SSO, PL 2. Sumon Chandra Debnath, SSO 3. Md Sadequl Azam, SO 4. Muhammad Shahriar Bashar, PSO 5. Md. Saidul Islam, SSO 6. Khaledunnahar Baby, SSO, Dhaka Labs. 7. Dr. S. F. U. Farhad, PSO, Dhaka Labs	Jun, 2019- Jul, 2022
15	Microcontroller based Automatic Power Factor Correction Device to reduce electric power loss	1. Md Saidul Islam, SSO, PL 2. Mashudur Rahman, PSO, 3. Md Sadequl Azam, SO 4. Md Azizul Hoque, SSO 5. Abu Kowsar, SSO	2019-2021
16.	Purification of Biogas for commercial Usage	1. Ajoy Kanto Mondol, SSO,PL 2. Taposhi Rabeya, SSO 3. Mohammad Asadullah Asad, SSO	2018-22
17.	Design and performance analysis of safer and user friendly biogas plant suitable for Bangladesh	1. Mohammad Asadullah Asad, SSO, PL 2. S. M. Asaduzzaman Sujon, PSO 3. Mosharof Hossain,. PSO 4. Ajoy Kanti Mondol, SSO	2018-22
18	Uninterrupted Solar cooking using Phase change materials	1. Md Azizul Hoque, SSO, PL 2. Mshudur Rahman, PSO, 3. Md. Saidul Islam,SSO 4. Sumon Chandra Debnath, SSO, PP&PDC 5. Md Sadequl Azam, SO	2018-21 ext
19	Design and Development of renewable energy appliances	1. Muhammad Shahriar Bashar, PSO 2. Munira Sultana, SO 3. Ayesha Siddika, SO 4. Syed Shafquat Mahmood, SO	2018- 20

20	Production of bio lubricating oil from non-edible seeds	1. Sujit Kumar Banik, PSO, PL 2. Taposhi Rabeya, SSO	2016-2022
21	Fabrication and characterization of dye sensitized Solar Cell	1. Muhammad Shahriar Bashar, PSO, PL 2. Dr. Samia Tabassum, SSO 3. Sumon Chandra Debnath, SSO 4. Munira Sultana, SSO 5. Ayesha Siddika, SO	2014-2021
22	Fabrication and characterization of thin film solar cell for low cost solar power	1. Muhammad Shahriar basher, PSO, PL 2. Dr. Samia Tabassum, SSO 3. Mashudur Rahman, PSO 4. Afrina Sharmin, SSO 5. Munir5a Sultana, SO 6. Ayesha Siddika, SO 7. Syed Shafquat Mahmood, SO 8. Syed Farid Uddin Farhad, PSO, Dhaka Labs. 9. Dr. Abdul Gafur, PSO, PP & PDC	2014-22
23	Continuous monitoring and collection of solar insulation data at different altitude and latitude among different locations of Bangladesh	1. Muhammad Shahriar Bashar, PSO, PL 2. Mashudur Rahman, PSO 3. Dr. Samia Tabassum, SSO 4. Md. Saidul Islam, SSO 5. Afrina Sharmin, SSO 6. Md Azizul Hoque, SSO	2014- cont.
24	Synthesis of Graphene Nanorod as Electron Transport Layer (ETL) for Perovskite Solar Cells(PSCs)	1. Dr. Mohammad Shah Jamal, PSO, IFRD (PL) 2. Mosharof Hossain, PSO, IFRD, BCSIR 3. Muhammad Shahriar Bashar, PSO, IFRD, BCSIR 4. S.M Asaduzzaman Sujan, PSO, IFRD, BCSIR 5. Dipa Islam, SSO, BTRI, BCSIR	Jul, 2021 - Jun, 2024
25	Development of an android app to design and calculate the photovoltaic solar home system (SHS)	1. Muhammad Shahriar Bashar, PSO (PL) 2. Afrina Sharmin, SSO 3. Munira Sultana, SO 4. Ayesha Siddika, SO 5. Syed Shafquat Mahmood, SO	Jul, 2021 – Jun, 2023

26	Reduction of Greenhouse Gas Emissions Using Catalytic Sorbent during Fuel Combustion	1. Mosharof Hossain, PSO, IFRD, BCSIR (PL) 2. Dr. Mohammad Shah Jamal, PSO, IFRD, BCSIR 3. S. M. Asaduzzaman Sujon, PSO, IFRD, BCSIR	Jul, 2021 – Jun, 2023
27	Development of an AI (Artificial Intelligence) embedded power management device to optimize electric power usage in office and residential buildings	1. Md. Saidul Islam, SSO, IFRD, BCSIR (PL) 2. Mashudur Rahaman, PSO, IFRD, BCSIR 3. Sumon Chandra Debnath, SSO, PP&PDC, BCSIR. 4. Md. Sadequl Azam, SO, IFRD, BCSIR	Jul, 2021 – Jun, 2024
28	Increasing the photo-conversion efficiency of CdTe-based solar cell by selective Cl-treatment	1. Afrina Sharmin, SSO, IFRD (PL) 2. Muhammad Shahriar Bashar, PSO, IFRD 3. Munira Sultana, SO, IFRD 4. Ayesha Siddika, SO, IFRD 5. Syed Shafquat Mahmood, SO, IFRD	Jul, 2021 – Jun, 2023
29	Design development and techno-economic evaluation of a micro-grid photovoltaic system for healthcare in Bangladesh	1. Abu Kowsar, SSO, IFRD, BCSIR, (P L) 2. Md. Saidul Islam, SSO, IFRD, BCSIR 3. Mashudur Rahman, PSO, BCSIR 4. Dr. Nawshad Haque, Senior Scientist, CSIRO, Australia 5. Dr. Firoz Alam, Professor, RMIT University, Australia	Jul, 2021 – Jun, 2022
Total 29 R&D Projects are currently ongoing			