

Industrial Automation & Control Systems Projects

- Cement Factory – 50kg Automatic Bag Filling Controller Design & Installation
- Melamine Manufacturing Plant – Microcontroller-based Machine Control System
- Electric Switch Factory – Customized Durability Testing Machine
- Industrial Water Consumption Monitoring System
- Generator Remote Monitoring & Control System
- BTS Tower Room Monitoring System
- Solar Panel Charge Controller & Panel Cleaning System
- Industrial Control Panel Design, Wiring & Commissioning

Custom Machine Design, Manufacturing, Installation & Training

- Soap Factory – Chemical Mixer Machine, Soap Cutter, Screw Extruder Machine
- Tobacco Industry – Steam Rotary Dryer Machine (Design & Installation)
- Garments Printing – Flock Spraying Machine Development & Supply
- Wood & Board Industry – Automation & Embedded System Integration
- CNC Router & Milling Machine Assembly and commissioning with trouble shooting (3-axis & 5-axis)
- Laser Engraving Machine Setup & Technical Training
- Biodegradable Polymer film making Plant

CNG Cylinder Retest Plant Projects

- Established 10nos. CNG Cylinder Retest Plants
- Developed PC-Based Testing Software
- Designed Cylinder Test Chamber & Wash System
- Automated Reporting & Printing System
- Overhead Crane Cylinder Shifting System
- High-Pressure Hydraulic Testing Integration

Marine Engineering Experience (Singapore)

- Company: Sembawang Shipyard Pte Ltd
- Worked on 200+ vessels including oil tankers, LNG/LPG carriers & cargo ships
 - Valve Systems: Globe, Gate, Ball, Butterfly, Diaphragm
 - Pump Systems: Centrifugal, Screw, Diaphragm, Piston
 - Hydraulic Systems & High-Pressure Tools
 - Motor Coupling Alignment & Engine Overhaul
 - Mechanical Supervision & Safety Compliance

Biodegradable Polymer Pilot Plant Development

- Designed 2000kg Reactive Mixer Tank
- 2-Ton Autoclave System
- 100ft Electric Conveyor Dryer
- Rotary Dryer System
- Cellulose Extraction Machine
- Treatment Plant Integration
- Jet-Based Thin Film Manufacturing Concept Development

Professional Capability Summary

More than 20 years of hands-on experience in industrial automation, custom machine design, electrical and mechanical system integration, plant setup, troubleshooting, and commissioning. Capable of complete project execution from design to installation and technical supervision.

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3. acting in the capacity of: Controller of Examinations

4. bears the seal/stamp of: Bangladesh Technical Education Board

5. at Dhaka, Bangladesh

6. the 18-Feb-2026

**7. by MD. MEHEFUZUL ISLAM,
Assistant Secretary, Ministry of Foreign Affairs**

8. N° 208434087569

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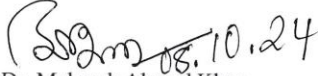
To Whom It May Concern

I am writing to wholeheartedly recommend Md. Shamsul Arafine, the owner and lead engineer of **Honeycomb Tech**. Over the years, he has worked with me on numerous projects, and I can confidently say he is an outstanding machine designer with a remarkable ability to adapt to developing design concepts and the latest technologies. His capacity to understand my ideas and skillfully translate them into fully operational machinery has been nothing short of exceptional.

From 2017 to 2024, Md. Shamsul Arafine has played a key role in the success of the "Sonali Bag Project" at the Latif Bawani Jute Mills Ltd. in Demra, Dhaka. He built a number of customized machines that brought my concepts to life, most notably the "Film Casting Machine," which is pivotal in producing biodegradable biopolymer materials for eco-friendly bags. Additionally, he introduced a range of innovative designs, including an "interconnected online autoclave system with mixer and cooling system," a cellulose extruder machine, a nano-fiber grinder, an ammonia vapor treatment chamber, a rotary fiber dryer, and a liquid-to-powder conversion machine.

Beyond his machine design capabilities, Md. Shamsul Arafine excels in machinery maintenance, repair, research and development, automation, PLC programming, CNC engineering, and the production of biodegradable products. His solutions consistently enhance efficiency and promote sustainability, reflecting his forward-thinking approach and commitment to high-quality engineering.

Md. Shamsul Arafine's technical expertise, innovative mindset, and dedication to excellence make him an invaluable asset to any project. I highly recommend him for any project requiring customized machine, machine solutions, mechanical design or engineering and R&D work.



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