An Implementation Concept in Context of Smart Factories and Industry 4.0

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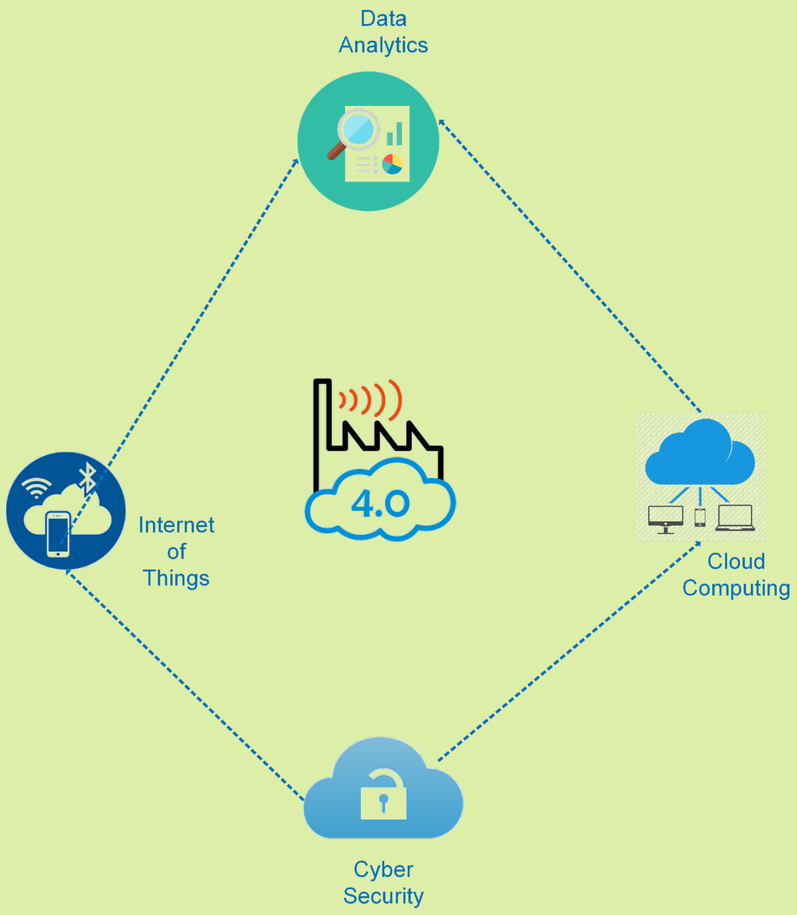
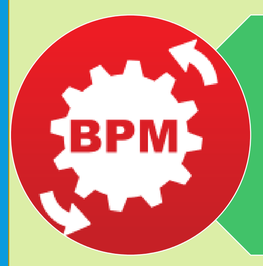
Our Model and Industry 4.0?



Why Industry 4.0?

Better Decision Making using real-time information



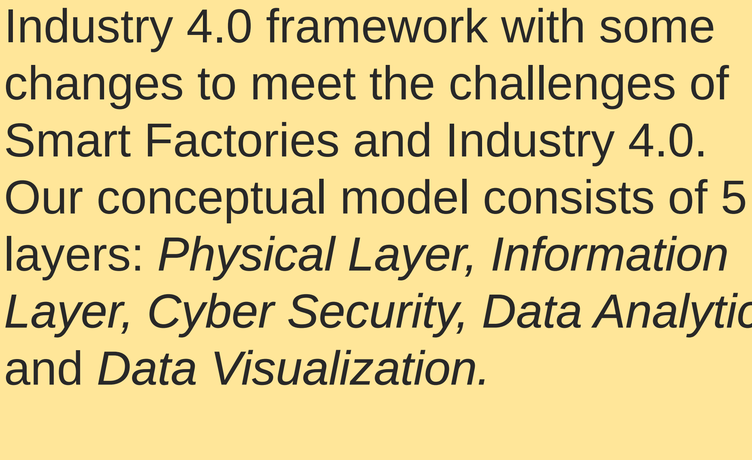
Better Business Process Model

Better Product Customization

Challenges in Automated Urine Measurement System Implementation

- Selection of Efficient Sensors Esp. Low Flow Sensors
- Combination of Low and High Flow Sensors
- Data Privacy and Security
- Data Communication
- Data Analytics
- Design And Development of Cloud Based Software Application
- Interfacing Micro-controller and Programming Languages

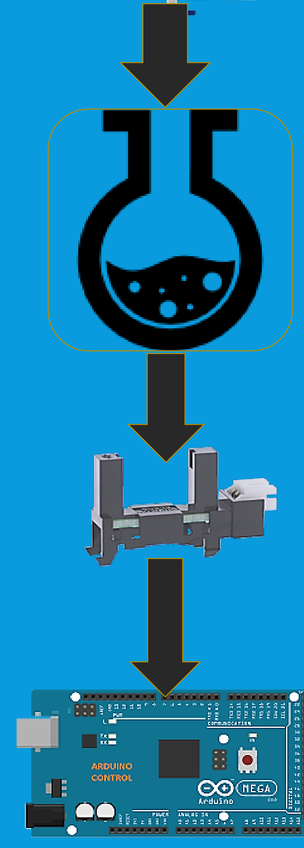
Current System

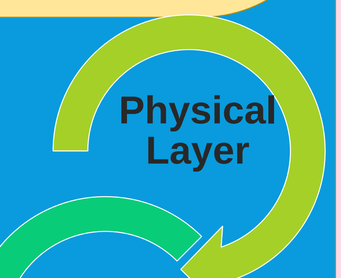


Our Conceptual Model

Our proposed concept depicted by Figure below is based on the Industry 4.0 framework with some changes to meet the challenges of Smart Factories and Industry 4.0. Our conceptual model consists of 5 layers: *Physical Layer, Information Layer, Cyber Security, Data Analytics* and *Data Visualization.*

How Our Model Works?





Benefits of Our System

- Improve the diagnosis process in the hospitals.
- Relieve the burden of the staff.
- The overall conceptual model offers a unique way to implement the smart factories.
- Our model can be used to enhance the capabilities of IIoT applications.
- It can be used as a model for further enhancement to incorporate the Industry 4.0 concept.

Impact of Our System

- Reducing Human Error.
- Improving Diagnosis Process.
- Reducing Staff Workload

Expected Results and Future Perspectives:

- A fully integrated system for monitoring urine flow.
- Below 15% error in measurements.
- Applications in medical and process industries for different liquids.

What the Future Holds for 4th Industrial Revolution

- One of the best initiatives of the modern era.
- Revolutionizing Industrial norms.
- Enhancing Business Process.
- Improving Factory to customer experience.