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IIoT Applications: Facility Management

Dr. Sudip Misra

Professor

Department of Computer Science and Engineering

Indian Institute of Technology Kharagpur

Email: smisra@sit.iitkgp.ernet.in

Website: <http://cse.iitkgp.ac.in/~smisra/>

Research Lab: cse.iitkgp.ac.in/~smisra/swan/

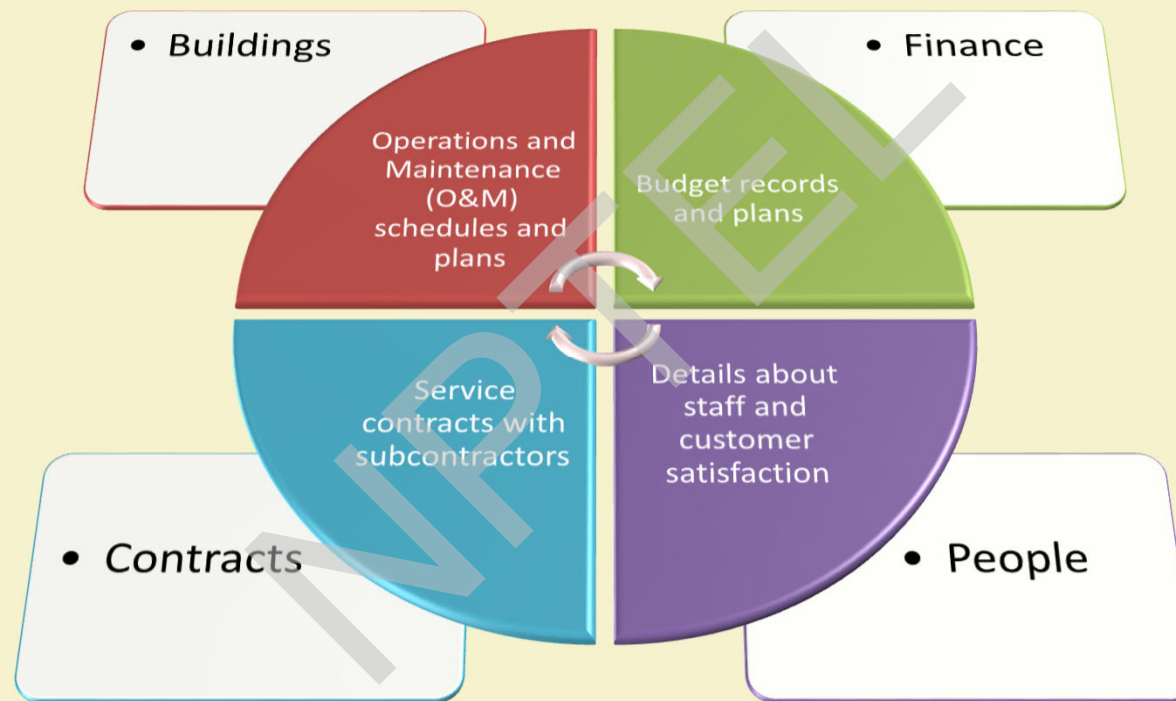
Facility Management

“guiding and managing the operations and maintenance of buildings, precincts and community infrastructure on behalf of property owners”

[Facilities Management Good Practice Guide]



Facility Management

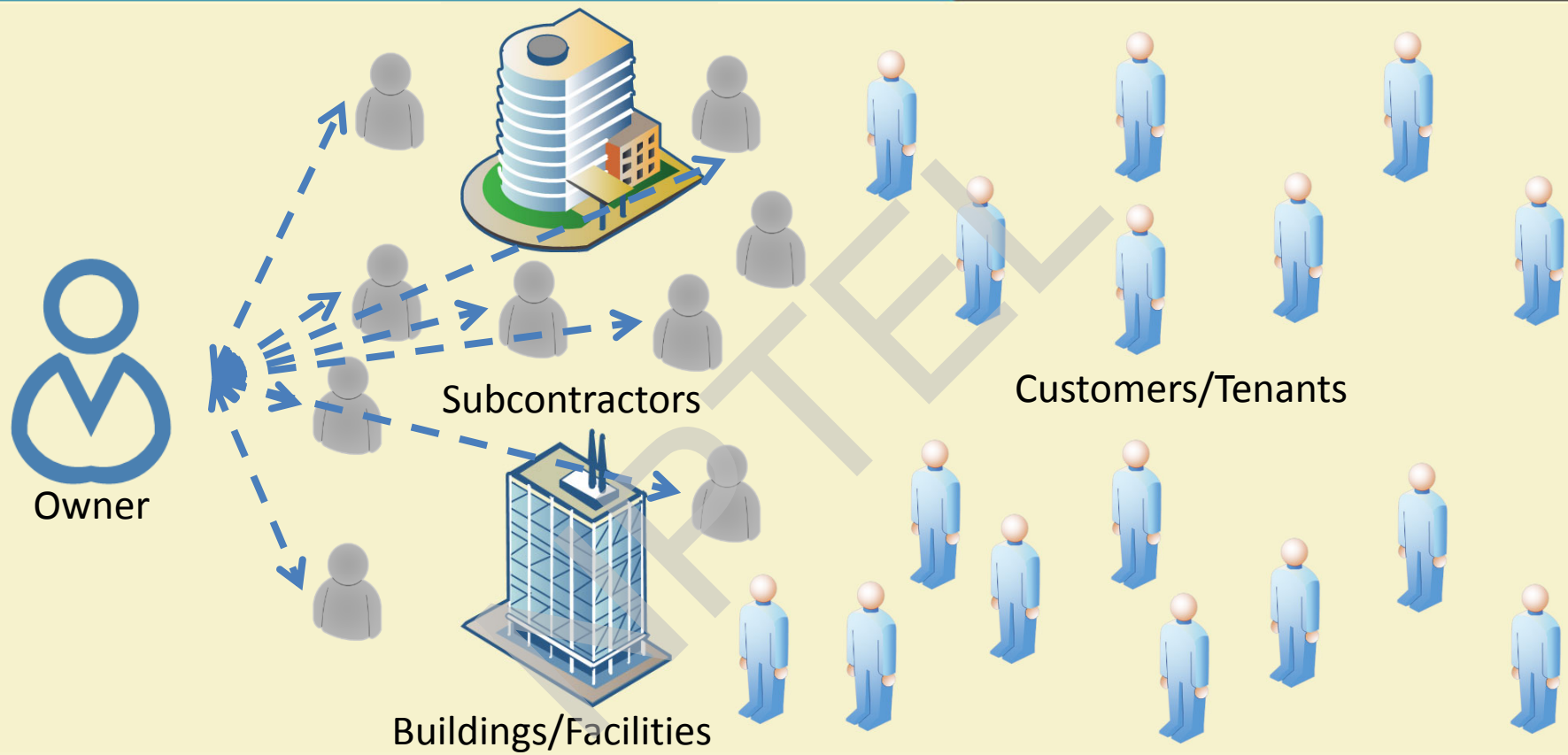


Facility Management

- Support services for organizations
- Integrates people, place and process
- Improve quality of working environment
- Improve productivity

Closely related to the operations conducted in a building





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Scope of IoT in Facility Management

- Accessing new insights:
 - Gather data, reduce power consumption
- Implementing new technology:
 - Implementing new technology like Li-Fi (Light Fidelity) and data security
- Addressing cost barrier:
 - Increases operating efficiency and reduce maintenance cost



Support Services

- Finance
 - Planning and reviewing of budget
- Information Technology
 - Improve the ability to co-ordinate among the installed devices
- Human Resources
 - Improve the quality of workforce and the environment



Support Services (contd.)

- Administrative Support
 - Monitoring, gathering, disseminating relevant information and take decisions
- Marketing
 - Research potential customers
- Knowledge
- Business Development
 - Overall growth of business



Key Idea

- Comprehensive detail of every machine
 - Faults, history, usage and modifications
- Data consistency
- Harmonized decisions



Real Power

- Predict events before they occur
- Measures to prevent predicted hazards

Need for Big Data and advanced analytics to analyze them



Optimization

- Optimized usage of resources:
 - Manpower
 - Assets
 - Technology
 - Cost-effectiveness



Challenges

- Cost management
 - Balancing the quality of the facility and its budget
- Ageing inventory
 - Need for proactive preventive and maintenance procedures
- Changing regulatory and compliance standards
 - Need for improvement and new ways to stand out from competitors
- Security Management
 - Security against breaches and threats



IoT Application in Facility Management

- Lighting
- Refrigeration
- Smart Meters
- Fire Suppression Systems
- Appliances with Embedded Sensors/Software



IoT Application in Facility Management (Contd..)

- Security and Safety Alarms
 - Monitor alarms, smoke detector, other life safety systems remotely
 - Real time information about emergency
- Central Heating Ventilation and Air-Conditioning (HVAC)

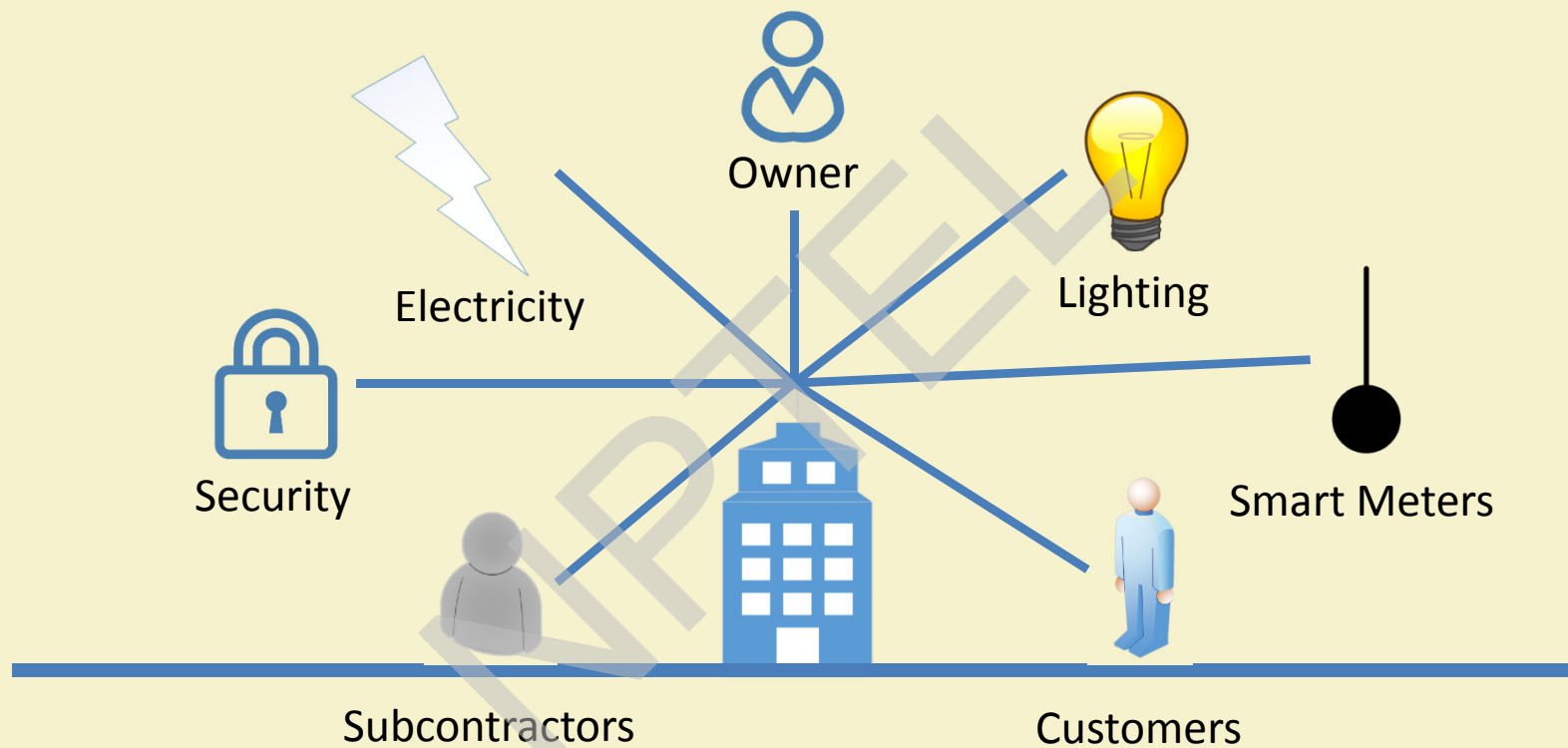
“we will start to see an ecosystem of tools and services develop that will make the HVAC system more efficient and easier to operate,” Dan McJacobson, McGuire Engineers



IoT Application in Facility Management (Contd..)

- Room Reservation and Scheduling
 - Checking real time status of meeting rooms and avoid double-booking
- Monitoring Stock and Usage of Supplies
 - Monitor usage of restrooms
 - Efficient supply management
 - Water management
 - Monitor transmission lines and pipes





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Analytics in Facility Management (contd..)

- Managing Energy Consumption
- Data-driven Decision-making
- Operational Cost-optimization
- Remote Monitoring of Facilities
- Determining the Exact Square-foot Utilization of Office Space



Benefits

- Improve customer experience
- Prevent unauthorized access
- Real-time tracking
- The ability to do more with less



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Thank You!!



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