

Newsletter

ELECTRIC EXPRESS

December, 2023 / Vol 04

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Department of ELECTRICAL ENGINEERING

UG PROGRAM



DREAM INSTITUTE OF TECHNOLOGY

Thakurpukur, Samali, B.H Road
Kolkata - 700104, West Bengal, India.

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/9874155125**

RECENT ACHIEVEMENTS

TWO PATENTS IN LAST SEMESTER

(12) PATENT APPLICATION PUBLICATION (19) INDIA (22) Date of filing of Application: 26/11/2023	(21) Application No.: 202311080241 A (43) Publication Date: 01/12/2023
(54) Title of the invention: IoT BASED SMART GARBAGE SEGREGATION DUSTBIN WITH LEVEL INDICATOR SYSTEM	
(51) International Classification: B01F100/100000, B01F101/10000, A61B007/00000, B01F009/00000, G16H001/00000	(71) Name of Applicant: DREAM INSTITUTE OF TECHNOLOGY Address of Applicant: Thakurpukur Bakulbari Road, Sarnali, Kolkata - 700104, West Bengal, India, Kolkata
(60) International Application No.: PCT/IN2021/1900 Filing Date: 01/01/2021	Name of Applicant: N/A Address of Applicant: N/A
(67) International Publication No.: N/A	(72) Name of Inventor: Dr. Dipankar Sarkar Address of Applicant: Professor and Principal, Department of Electrical Engineering, Dream Institute of Technology, Thakurpukur Bakulbari Road, Sarnali, Kolkata - 700104, West Bengal, India, Kolkata
(61) Piece of Address to Applicant Number: N/A Filing Date: N/A (62) Domestic to Applicant Number: N/A Filing Date: N/A	(61) Patent of Address to Applicant Number: N/A Filing Date: N/A (62) Domestic to Applicant Number: N/A Filing Date: N/A
(57) Abstract: Waste segregation and recycling are effective ways of reducing trash. Segregation at the source is the key in solid waste management especially when we have limited conventional resources. Segregation of waste and creating awareness of different types of waste in new boxes. We divide solid waste into three categories like, Dry and hazardous waste. According to solid waste management rule, 2016 it is responsibility of guardian to segregate waste into these three categories. The main objective of this project is to design a system with Arduino Mega for automatic segregation of waste in source and capable of detecting. It also creates the distance and the status of the bin will be sent through IFTTT to the mobile phone for sending SMS. This bin can be used at places like offices, apartments, shopping malls etc. This system will be useful in making Waste Management in smart cities automated without the human intervention. No. of Pages: 22 No. of Claims: 1	
The Patent Office Journal No. 48/2023 Dated 01/12/2023 84099	

(12) PATENT APPLICATION PUBLICATION (19) INDIA (22) Date of filing of Application: 22/11/2023	(21) Application No.: 202311079181 A (43) Publication Date: 01/12/2023
(54) Title of the invention: VOICE CONTROLLED AUTOMATED ELEVATOR WITH OVERLOAD ALERT	
(51) International Classification: G08B0027/37000, G06F001/14000, G06F001/18000, G06F009/00000, H04M001/90000	(71) Name of Applicant: DREAM INSTITUTE OF TECHNOLOGY Address of Applicant: Thakurpukur Bakulbari Road, Sarnali, Kolkata - 700104, West Bengal, India, Kolkata
(60) International Application No.: N/A Filing Date: N/A	Name of Applicant: N/A Address of Applicant: N/A
(67) International Publication No.: N/A	(72) Name of Inventor: Dr. Dipankar Sarkar Address of Applicant: Professor and Principal, Department of Electrical Engineering, Dream Institute of Technology, Thakurpukur Bakulbari Road, Sarnali, Kolkata - 700104, West Bengal, India, Kolkata
(61) Patent of Address to Applicant Number: N/A Filing Date: N/A (62) Domestic to Applicant Number: N/A Filing Date: N/A	(61) Patent of Address to Applicant Number: N/A Filing Date: N/A (62) Domestic to Applicant Number: N/A Filing Date: N/A
(57) Abstract: An embedded system is a combination of software and hardware to perform a dedicated task. Some of the main devices used in embedded products are Microprocessors and Micro-controllers. Microprocessors are commonly referred to as general purpose processors as they simply accept the inputs, process it and give the output. In contrast, a micro-controller not only accepts the data as inputs but also manipulates it, interface the data with various devices, controls the data and then finally gives the result. The project "Voice-controlled Elevator with voice announcing feature" using PIC16F73 micro-controller is an exclusive project which is used to detect the overload of transformer and trip the circuit automatically and also it can give the voice alert in the system detect overload. No. of Pages: 18 No. of Claims: 4	
The Patent Office Journal No. 48/2023 Dated 01/12/2023 84092	

By
Dr. Dipankar Sarkar
Professor

Paper Id.: 10

A Review on Internet of Things based Energy Management System in Indian Smart Buildings

Sushovan Roy
Electrical Engineering Department, Dream Institute of Technology, Kolkata, India
Dr. Sandip Chanda
Electrical Engineering Department, Ghani Khan Choudhury Institute of Engineering & Technology, India
Dr. Papun Biswas
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Electrical Engineering Department, IEST Shibpur (formerly BESU), India

Abstract: India's residential sector should create energy-efficient techniques to reverse the country's rapidly rising energy consumption, given that smart building energy depletion is expected to increase by over eight times. One way to reduce cooling and heating loads and satisfy India's climate ambitions is to create more organized smart buildings. The study's goal is to evaluate a building's energy efficiency about its orientation and location (Indian cities). The Energy Management System for smart buildings uses data from IoT devices to optimize energy use. The system gathers data from different Internet of Things devices, like motion, temperature, and smart appliance sensors. It also gathers information on occupancy patterns, weather conditions, and energy consumption. After preprocessing the gathered data is used to train an algorithm for energy optimization. The model can reduce environmental impact and save costs by optimizing energy usage in a residential building and projecting future energy demands. The suggested algorithm qualifies as a "smart building" since it can serve as the basis for creating an efficient SEMS with IoT.

Keywords: IoT, BMS, Energy Consumption, Energy Saving, HVAC.

RECENT EVENTS HIGHLIGHTS

3 Day Workshop on Foundation of IoT (Sponsored by IET)

3 DAY WORKSHOP

FOUNDATION OF IoT

DR. J.M. BERA
PROFESSOR
IIT

DR. S. RAY
ASSO. PROFESSOR
IIT

DR. BIVAS RAY
IIT
EE DEPT, DIT

MR. A. MONDAL
IIT
ASSO. PROFESSOR
EE DEPT, DIT

MR. S. SARKAR
IIT
ASSO. PROFESSOR
EE DEPT, DIT

DIT CAMPUS
B.H. ROAD
KOLKATA-104

24-26 AUG 2023

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IET (IN) KOLKATA LOCAL NETWORK & DREAM INSTITUTE OF TECHNOLOGY

ORGANISED BY
DEPARTMENT OF ELECTRICAL ENG. & DREAM INSTITUTE OF TECHNOLOGY

POINT OF CONTACT
DR. BIVAS RAY (03-953325566) MR. PRATYAK SARKAR (03-953370732)

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Industry-Academic Meet (Sponsored by IET)

One Day IT (UK) Kolkata Network Sponsored Seminar Entitled "Industry Academic Meet & Benefit of IET"

DIT CAMPUS, B.H. ROAD, KOLKATA-104

13th SEPTEMBER 2023

SPEAKERS
DR. SANKAR SUNDHARAN
Head, Asia Institute of Project Management (Planning and Controlling) www.AIPM.ac.in
DR. PALASH KUMAR KUNDU
Head, Department of Electrical Engineering, Institute of Technology

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BEEKSHARARISH COMMITTEE AND DEPARTMENT OF ELECTRICAL ENG. DREAM INSTITUTE OF TECHNOLOGY

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Setting of Green Innovation Club (in association with IIC)

WE WELCOME SwitchON Foundation

FOR SETTING UP GREENOVATION CLUB & Inaugural Workshop

14.09.2023 11 AM Seminar Hall DIT

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Entrepreneurship Talks (in association with IIC)

INSTITUTE INNOVATION COUNCIL OF DREAM INSTITUTE OF TECHNOLOGY PRESENTS SEMINAR

From Concept to Creation: The Inaugural Step in Transforming Technical Ideas into Product

WEDNESDAY 26 JULY 2023

TIME 11:00 AM-02:00 PM

SPEAKER
Mr. Subhabrata Bhattacharjee
Senior Program Manager- Wadhvani Entrepreneurship Network

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Conference Paper by
Mr. Sushovan Roy
(Assistant Professor)



Int. J. System of Systems Engineering, Vol. 13, No. 3, 2023 271

Design and development of dynamic gesture recognition system based on deep neural network for driver assistive devices

Arindam Mondal* and Sahadev Roy

Int. J. System of Systems Engineering, Vol. 13, No. 2, 2023 123

Design and development of fusion-based expert system for multimodal biometric recognition with facemask authentication

Arindam Mondal* and Sahadev Roy

06 October, 2023

DIT Campus

NASA INTERNATIONAL SPACE APPS CHALLENGE (Institute Level)

Two Journal Paper by
Mr. Arindam Mondal
(Assistant Professor)

STUDENT PARTICIPATION & ACHIEVEMENT

Student Visit to
BIRLA INDUSTRIAL & TECHNOLOGICAL MUSEUM

Training and Internship

99% Final Year students have Undergone
Industrial Training and internships

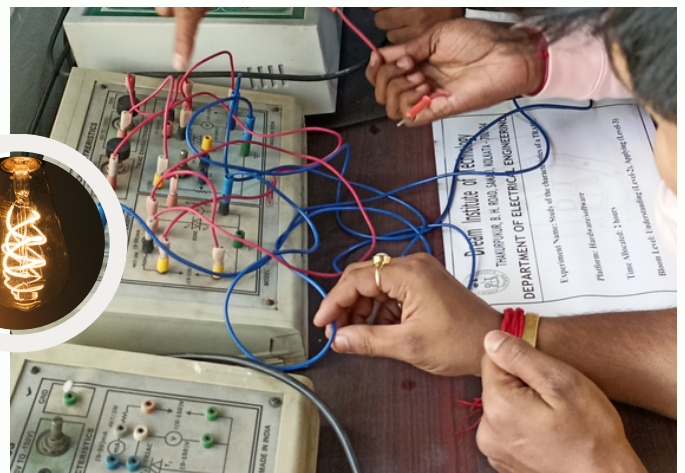


Major Recruiter in Last Year



Last Year Placement 79%

Industry Academia Linkage Established



ABOUT US

VISION OF THE DEPARTMENT
A VIBRANT AND RECOGNIZED
DEPARTMENT PRODUCING
GLOBALLY COMPETENT
ELECTRICAL ENGINEERS.

MISSION OF THE DEPARTMENT

- Provide continuous faculty development avenues to faculty so as to upgrade their qualification, knowledge and skills to meet the challenges of rapidly changing technology.
- Adopt globally recognized pedagogy to ensure effective knowledge transfer including use of latest ICT Tools and student centric learning software so as to produce job ready graduates.
- Maintain state of the art laboratory and research facilities as per global standard and conduct departmental as well as inter-departmental research activities, publications, consultancies and projects from industry to generate revenue for self sustenance.
- Inculcate the entrepreneurial spirit through innovation and incubation cell to ensure capability to solve the societal problems.

Department Laboratory Facility

- BASIC ELECTRICAL LABORATORY
- ELECTRIC MACHINE LABORATORY
- POWER SYSTEM LABORATORY
- CIRCUIT THEORY LABORATORY
- POWER ELECTRONICS LABORATORY
- DRIVES LABORATORY
- SIMULATION LABORATORY
- PROJECT LABORATORY
- INDUSTRIAL INSTRUMENTATION LABORATORY

Major Simulation Facility



Program Offered

- 4 Year B.Tech (UG Program)
- In Electrical Engineering
(60 Intake)
- 2 Year M.Tech (PG Program)
- In Power Electronics & Drives.
(18 Intake)

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