



SHREE CHANAKYA EDUCATION SOCIETY'S

# INDIRA COLLEGE OF ENGINEERING AND MANAGEMENT

Approved By AICTE New Delhi, DTE (MS), Affiliated to Pune University

## CERTIFICATE

### To whom so ever it may concern

This is to certify that **Dr. Mahesh G. Bhong** from **Mechanical Engineering** Department has successfully Completed the research project entitled "**Microwave Convective Drying for Green Leafy Vegetables**" Carried out at Indira College of Engineering and Management, Pune from 10/01/23 to 31 /3/24 under the research project scheme sponsored by '**Dolphin Labs Embedded Systems (OPC) Pvt. Ltd.**

**Dr. Poorna Shankar**

Professor and Dean R&D

**Dr. POORNA SHANKAR**

Professor and Dean-R&D

Indira College of Engg. & Mgt. Pune-410506

Date:

**Dr. Soumitra Das**

Principal /c

**Indira College of Engineering  
& Management, Parandwadi, Pune**





## CERTIFICATE

### To whom so ever it may concern

This is to certify that **Prof.Siddheshwar S Shirbhate** from Mechanical Department has successfully completed the research project entitled Thermal Analysis of Horizontal Jet Cooling System on Vertical Target Carried out at Indira College of Engineering and Management, Pune from 10/01/23 to 31/3/24 under the research project scheme sponsored by '**Dolphin Labs Embedded Systems (OPC) Pvt. Ltd.**

**Dr. Poorna Shankar**

Professor and Dean R&D

**Dr. POORNA SHANKAR**

Professor and Dean-R&D  
Indira College of Engg. & Mgt. Pune-410506

Date:

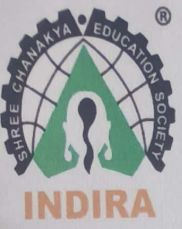
**Dr. Soumitra Das**

**I/C Principal**

Indira College of Engineering & Management  
Parandwadi Pune-410506

Principal





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# INDIRA COLLEGE OF ENGINEERING AND MANAGEMENT

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## CERTIFICATE

### To whom so ever it may concern

This is to certify that Prof. Dr. Soumitra Das from Computer Engineering Department has successfully Completed the research project entitled "Design of an IoT enabled Drone Crop Sprayer" Carried out at Indira College of Engineering and Management, Pune from 16<sup>th</sup> Jan 2023 to 31<sup>st</sup> March 2024 under the research project scheme sponsored by Ohms Automation.

**Dr. Poorna Shankar**

Professor and Dean R&D

**Dr. POORNA SHANKAR**

Professor and Dean-R&D

Indira College of Engg. & Mgt. Pune-410506

Date: 28/3/2024

**Dr. Soumitra Das**

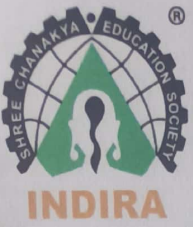
Principal I/c

**Principal**

**Indira College of Engineering  
& Management, Parandwadi, Pune**







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# INDIRA COLLEGE OF ENGINEERING AND MANAGEMENT

Approved By AICTE New Delhi, DTE (MS), Affiliated to Pune University and Accredited by NAAC with B++ Grade

(Id-No. PU/PN/Engg/282/2007)

## CERTIFICATE

### To whom so ever it may concern

This is to certify that Prof. Dr. Poorna Shanar from MCA Department has successfully Completed the research project entitled **AI Controlled DRONE with confined GPS for Security Surveillance** Carried out at Indira College of Engineering and Management, Pune from 16/1/2023 to 1/3/2024 under the research project scheme sponsored by **Ohms Automation**.

**Dr. Soumitra Das**

Principal I/c

Principal

Indira College of Engineering  
& Management, Parandwadi, Pune

Date: 28/3/24





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## CERTIFICATE

### To whom so ever it may concern

This is to certify that Prof. Vishal A. Meshram from Mechanical Engineering Department has successfully Completed the research project entitled "In-campus Solar energy-based charging station for Electric Vehicles Battery." Carried out at Indira College of Engineering and Management, Pune from 10/01/23 to 10/01/24 under the research project scheme sponsored by Ohms Automation.

**Dr. Poorna Shankar**

Professor and Dean R&D

**Dr. POORNA SHANKAR**

Professor and Dean-R&D

Indira-College of Engg. & Mgt. Pune-410506

Date:

**Dr. Soumitra Das**

Principal I/c

**Principal**

**Indira College of Engineering  
& Management, Parandwadi, Pune**

Sr. No. 64,65 Gat No. 276, Parandwadi, off Pune – Mumbai Highway, near Somatane Phata, Taluka Maval,- Pune 410 506  
Tel. : +91 2114 661500 Fax : +91 2114 661700 e-mail:- info@indiraicem.ac.in www.indiraicem.ac.in





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**INDIRA COLLEGE OF ENGINEERING AND MANAGEMENT**

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## CERTIFICATE

### To whom so ever it may concern

This is to certify that Prof. Pratima Gaikwad from Basic Engineering Department has successfully Completed the research project entitled "*Battery Balancing for a Multilevel Inverter*" Carried out at Indira College of Engineering and Management, Pune from 20/3/23 to 15/3/24 under the research project scheme sponsored by Ohms Automation.

**Dr. Poorna Shankar**

Professor and Dean R&D

**Dr. POORNA SHANKAR**

Professor and Dean-R&D

Date: Indira College of Engg. & Mgt. Pune-410506

**Dr. Soumitra Das**

Principal I/c

**Principal**

**Indira College of Engineering  
& Management,  
Parandwadi, Pune.**







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## CERTIFICATE

### To whom so ever it may concern

This is to certify that Prof. Shreyas Satpute from Civil Engineering Department has successfully completed the research project entitled **Automated Aeroponic Indoor Eco-Air Purifier** carried out at Indira College of Engineering and Management, Pune from 23/12/2022 to 31/10/2023 under the seed funding scheme.

**Dr. Poorna Shankar**  
Professor and Dean R&D

**Dr. POORNA SHANKAR**  
Professor and Dean-R&D  
Indira College of Engg. & Mgt. Pune-410506



**Dr. Soumitra Das**  
Principal I/c

**Indira College of Engineering  
& Management, Parandwadi, Pune**

Date: 4/4/2024





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## CERTIFICATE

### To whom so ever it may concern

This is to certify that Prof. Meenakshi Patil, Prof. Dhiraj Bhagwat and Prof. Rupali Salunke from E&TC Department has successfully Completed the research project entitled "Li-Fi (Light Fidelity), an alternative to Wireless communication" Carried out at Indira College of Engineering and Management, Pune from 10 /01/ 23 to 15/3/24 under the seed funding scheme.

**Dr. Poorna Shankar**

Professor and Dean R&D

**Dr. POORNA SHANKAR**

Professor and Dean-R&D

Indira College of Engg. & Mgt. Pune-410506

Date:

**Dr. Soumitra Das**

Principal

Indira College of Engineering  
& Management, Parandwadi, Pune







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## CERTIFICATE

### To whom so ever it may concern

This is to certify that Prof. Nikhil Mulik from Civil Engineering Department has successfully completed the research project entitled **Sustainable Replacement of Cement and Sand with Commercial Waste to Alter the Mechanical Properties of Concrete** carried out at Indira College of Engineering and Management, Pune from 01/10/2022 to 31/07/2023 under the seed funding scheme.

**Dr. Poorna Shankar**  
Professor and Dean R&D

**Dr. POORNA SHANKAR**  
Professor and Dean-R&D  
Indira College of Engg. & Mgt. Pune-410506

**Dr. Soumitra Das**  
Principal I/c

**Principal**  
Indira College of Engineering  
& Management, Parandwadi, Pune

Date:

Sr. No. 64,65 Gat No. 276, Parandwadi, off Pune – Mumbai Highway, near Somatane Phata, Taluka Maval, - Pune 410 506  
Tel. : +91 2114 661500 Fax : +91 2114 661700 e-mail:- info@indiraicem.ac.in www.indiraicem.ac.in





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# INDIRA COLLEGE OF ENGINEERING AND MANAGEMENT

Approved By AICTE New Delhi, DTE (MS), Affiliated to Pune University

INDIRA

## CERTIFICATE

### To whom so ever it may concern

This is to certify that Prof. Ashwin Dharme from Mechanical Department has successfully Completed the research project entitled Profile Drying of Agricultural Produce to increase life Span Carried out at Indira College of Engineering and Management, Pune from 10/03/23 to 15/3/24 under the seed funding scheme.

**Dr. Poorna Shankar**

Professor and Dean R&D

**Dr. POORNA SHANKAR**

Professor and Dean-R&D

Indira College of Engg. & Mgt. Pune-410506

Date: 31/3/24

**Dr. Soumitra Das**

Principal I/c





# RESONANCE AUTOMATION

- Training - R & D Consultancy

Ref: Res/2023-24/005

To,

Date:- 30<sup>th</sup> Mar 2024

The Director,  
Indira College of Engineering and Management,  
Gat No. 276, Tal Maval, S.No. 64,65, Parandwadi, Pune, Maharashtra, 410 506

Kind Attention: Prof. Dr. Poorna Shankar Madam

**Sub:** Sponsorship for a Project on Thermodynamic Measurements of a Pump-Final Disbursement and Extension of the date of completion till sept 2024.

R/D Sir,

With Reference to our discussions and E-mail communications, Resonance Automation, has completely disbursed the Sponsorship amount INR 100,000/4 for conducting the thermodynamic measurements and its model testing. The project has started from Jan 2024. Now the date of completion of this project is extended by another six months, till 30<sup>th</sup> September 2024, as per the need felt by the faculty co-ordinators.

Kindly do the needful to accelerate this project, so as to finish in time.

Thanking you,

For Resonance Automation

Dr. Ajay V. Deshmukh  
(Founding Director)

