



IIT KANPUR

Venkatesh K Subramanian

**DEPARTMENT OF
ELECTRICAL ENGINEERING**

0	206 ACES, IIT Kanpur - 208016 (INDIA)
R	415, IIT Kanpur - 208016 (INDIA)
0	+91 512 259/392/679 7468/7846
R	+91 512 259/392/679 8354
0	+91 512 259 0063
	venkats@iitk.ac.in



CERTIFICATE

This is to certify that Ms. **Isha Pandey, (BTBTN17025)** final year student of B.Tech. (**Electronics and Instrumentation**) at **Banasthali Vidyapith, Rajasthan**, has worked on the topic "**Tactile-Communication Based Wristband**". The work reported is original and was carried out by her during the period of 6 months (Jan. 1 – Jun. 30, 2021) under my supervision at 207A/ACES, **Computer Vision Lab, Dept. of Electrical Engineering, Indian Institute of Technology (IIT), Kanpur** for the partial fulfillment of the award of Degree of **Bachelor of Technology** at her parent institution.

(K S Venkatesh)
(30/06/2021)

प्राध्यापक
PROFESSOR
विद्युत अभियन्त्रण विभाग
Department of Electrical Engineering
भारतीय प्रौद्योगिकी संस्थान
Indian Institute of Technology
कानपुर, KANPUR-208 016



American Express (India) Private Limited

Commercial Block – 3, (Zone -6)

DLF City, Phase – V

Gurgaon – 122002 (Haryana)

Tel: 91 (0124) 467 6002

Fax: 91 (0124) 467 7655

June 18, 2021

CERTIFICATE OF PROJECT COMPLETION

This is to certify that **Monika Kumari** student of **Banasthali** has completed her summer internship with **American Express (India) Private Limited** from the period **January 12, 2021** till **June 18, 2021** , in **Technology** team.

We certify that **Monika Kumari** has completed her project titled **Consumer Force** successfully and displayed professionalism throughout the internship period.

The project undertaken by her contains proprietary data of American Express which cannot be shared outside of American Express.

With Regards,

Dr Sachin Gulati

Director – India Campus Recruitment

Cert. No :- CRISP/21/102/ONL06/00703

Reg. ID :- 2021/JSEEIIAOL/02/3

CRISP

ISO 9001 : 2015

**CENTRE FOR RESEARCH AND
INDUSTRIAL STAFF PERFORMANCE**

Certificate

This Certificate is awarded to

Ms. Manya Srivastava, D/o Mr. Shirish Chandra Srivastava

in recognition of his/her participation in Online

“Internship on Industrial Automation”

Conducted on/during 06-01-2021 to 25-06-2021

PIYUSH JAIN

Course Co-ordinator

Chief Executive Officer

Issue Date :-25-06-2021

(Established Under Indo-German Technical Co-operation)

Opp. Manas Bhawan, Shyamla Hills, Bhopal – 462002, Madhya Pradesh, India

Ph.: 0755-2661401, 4223702, FAX: 0755-4220022,

Website: www.crispindia.com , e-mail: crisponline@crispindia.com



CSIR- CSIO

**CSIR- Central Scientific Instruments Organisation
Sector 30-C, Chandigarh. India**

Certificate of Training

*This is to certify that **Bhanupriya**, daughter of Mr Shaitan Singh and a student of Banasthali Vidyapeeth, has trained with the Optical Devices and Systems Division of CSIR-CSIO from January 4, 2021 to May 31, 2021 with Enrolment Number A2832.*

Grade Awarded: Excellent

V. Singh

*Coordinator, Trainee and Apprenticeship Cell
July 9, 2021*

प्रशिक्षण समन्वयक
Training Coordinator
केन्द्रीय वैज्ञानिक उपकरण संगठन
Central Scientific Instruments Organisation
सेक्टर 30 - सी, / Sector 30-C. चण्डीगढ़ / Chandigarh



CSIR- CSIO

**CSIR- Central Scientific Instruments Organisation
Sector 30-C, Chandigarh. India**

Certificate of Training

This is to certify that **Yashaswee Raj**, daughter of Mr Rajiv Ranjan Choudhary and a student of Banasthali Vidyapeeth has trained with the Computational Instrumentation Division of CSIR-CSIO from January 4, 2021 to May 31, 2021 with Enrolment Number A2838.
Grade Awarded: Very Good

Wing

Coordinator, Trainee and Apprenticeship Cell
September 22, 2021

प्रशिक्षण समन्वयक
Training Coordinator
केन्द्रीय वैज्ञानिक उपकरण संगठन
Central Scientific Instruments Organisation
सेक्टर 30 - सी, / Sector 30-C, चण्डीगढ़ / Chandigarh



CSIR- CSIO

**CSIR- Central Scientific Instruments Organisation
Sector 30-C, Chandigarh. India**

Certificate of Training

This is to certify that **Ritvi Patidar**, daughter of Mr Avadhesh Patidar and a student of Banasthali Vidyapeeth, has trained with the BioMedical Instrumentation Division of CSIR-CSIO from January 4, 2021 to May 31, 2021 with Enrolment Number A2839.

Grade Awarded: Outstanding

King

Coordinator, Trainee and Apprenticeship Cell
September 20, 2021

प्रशिक्षण समन्वयक
Training Coordinator
केन्द्रीय वैज्ञानिक उपकरण संगठन
Central Scientific Instruments Organisation
सेक्टर 30 - सी, / Sector 30-C, चण्डीगढ़ / Chandigarh



CSIR- CSIO

**CSIR- Central Scientific Instruments Organisation
Sector 30-C, Chandigarh. India**

Certificate of Training

This is to certify that K Pranamita, daughter of Mr K Sriharsha and a student of Banasthali Vidyapeeth, has trained with the Delhi Centre of CSIR-CSIO from January 4, 2021 to June 25, 2021 with Enrolment Number A2877.

Grade Awarded: Excellent

*Coordinator, Trainee and Apprenticeship Cell
July 23, 2021*

प्रशिक्षण समन्वयक
Training Coordinator
केन्द्रीय वैज्ञानिक उपकरण संगठन
Central Scientific Instruments Organisation
सेक्टर 30 - सी, / Sector 30-C, चण्डीगढ़ / Chandigarh

ISO

ISO 9001:2015 Certified

होसावस्था भौतिकी प्रयोगशाला, दिल्ली
Solid State Physics Laboratory, Delhi



(Min. of Defence, DRDO)

Lucknow Road, Timarpur, Delhi-110054

प्रशिक्षण प्रमाणपत्र / TRAINING CERTIFICATE

File No. 1805-115-JR/SSPL/2021

Dated 28-06-2021

This is to certify that ~~Mr.~~/Ms./ Aditi Sharma
Student of Banasthali Vidyapeeth, Jaipur, Rajasthan Roll No. -
Branch B.Tech Elec. & Instrumentation has completed successfully Summer/~~Winter~~ Internship for
the period from 01-01-2021 to 28-06-2021 Duration Six ~~months~~ /months.

Topic of Internship was Direction of Arrival - Sound Detection

During the training period ~~his~~/her conduct at SSPL was good.

Kapil Kumar Jain

KAPIL KUMAR JAIN
Scientist 'G'
Group Dir. - HE
Solidstate Physics Laboratory
Lucknow Road, Delhi-110054
Head-HR

INTERNSHIP CERTIFICATION

This is to certify that

Aditi Jha

has successfully completed an Internship Program Artificial Intelligence
from 01-02-2021 to 10-06-2021.

During the Internship, the student was found to be
dedicated, hardworking, and diligent.

19-06-2021

DATE



VICE PRESIDENT - HR



Indian Institute of Science
Department of Physics
Bengaluru - 560012

CERTIFICATE

This to certify that Miss Ananya Gupta, pursuing B.Tech in Electronics and Instrumentation from Banasthali Vidyapith Newai, Rajasthan, India has worked on the project entitled "Human interactive robotic hand" during her stay from 27th Dec 2020 to 25th June 2021 in our laboratory at the Department of Physics, Indian Institute of Science, Bangalore. Her character and conduct were satisfactory during her stay at the IISc, Bangalore, India.

Abhijit Chandra Roy

Dr Abhijit Chandra Roy
DST-Inspire Faculty
Department of Physics
IISc Bengaluru

Cert. No :- CRISP/21/101/ONL06/00704

Reg. ID :- 2021/JSEEIAOL/02/2

CRISP

ISO 9001 : 2015

**CENTRE FOR RESEARCH AND
INDUSTRIAL STAFF PERFORMANCE**

Certificate

This Certificate is awarded to

Ms. Ankita Kumari, D/o Mr. Arvind Kumar

in recognition of his/her participation in Online

“Internship on Industrial Automation”

Conducted on/during 06-01-2021 to 25-06-2021

PIYUSH JAIN

Course Co-ordinator

Chief Executive Officer

Issue Date :-25-06-2021

(Established Under Indo-German Technical Co-operation)

Opp. Manas Bhawan, Shyamla Hills, Bhopal – 462002, Madhya Pradesh, India

Ph.: 0755-2661401, 4223702, FAX: 0755-4220022,

Website: www.crispindia.com , e-mail: crisponline@crispindia.com



सीएसआईआर केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान
CSIR-CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE
(विज्ञान तथा प्रौद्योगिकी मंत्रालय / MINISTRY OF SCIENCE & TECHNOLOGY, भारत सरकार / GOVT. OF INDIA)
पिलानी, राजस् (भारत) / Pilani, Rajasthan - 333031 (INDIA)



Dr. Suchandan Pal
Head, Project Monitoring & Evaluation
Chairman, International Science & Technology Affairs Group

No. PME\S\Trg\BU\2021
Date: 24/06/2021

To,

The Director
Banasthali Vidyapith,
P.O. Banasthali Vidyapith
Rajasthan – 304022

CERTIFICATE OF TRAINING

This is to certify that **Ms. Ankita, BTBTN17033, B.Tech. (Electronics and Instrumentation Engineering)** of your Institute has completed her project work online at this Institute during **15th January, 2021 to 15th June, 2021**. Her project was on **“POSITION ESTIMATION FOR SELF-SENSING SMA ACTUATOR”**.

Her conduct during the training was satisfactory.

Head, PME

प्रमुख पी.एम.ई./ Head PME
सीएसआईआर-केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान
CSIR-Central Electronics Engineering Research Institute
पिलानी, राजस्थान / Pilani, Rajasthan-333031



सीएसआईआर केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान
CSIR-CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE
(विज्ञान तथा प्रौद्योगिकी मंत्रालय / MINISTRY OF SCIENCE & TECHNOLOGY, भारत सरकार / GOVT. OF INDIA)
पिलानी, राजस् थन (भारत) / Pilani, Rajasthan - 333031 (INDIA)



Dr. Suchandan Pal
Head, Project Monitoring & Evaluation
Chairman, International Science & Technology Affairs Group

No. PME\S\Trg\BU\2021
Date: 22/06/2021

To,

The Director
Banasthali Vidyapith,
P.O. Banasthali Vidyapith
Rajasthan – 304022

CERTIFICATE OF TRAINING

This is to certify that **Ms. Anushka, BTBTN17070, B.Tech. (Electronics and Instrumentation Engineering)** of your Institute has completed her project work online at this Institute during **15th January, 2021 to 15th June, 2021**. Her project was on **“Study and Design of Planar Antenna for Detection and Measurement of Wi-Fi Radiation”**.

Her conduct during the training was satisfactory.

Head, PME

प्रमुख पी.एम.ई./ Head PME
सीएसआईआर-केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान
CSIR-Central Electronics Engineering Research Institute
पिलानी, राजस्थान / Pilani, Rajasthan-333031



Date: 18th June 2021

TO WHOM IT MAY CONCERN

This is to bring to your notice that **Ms. Anushka Sharma**, a student of B.tech 8th Semester in Banasthali Vidyapith, Rajasthan, has completed **6 Months** Internship on Web Technologies with **Webs Jyoti**.

She has worked on Online Shopping Project titled “**Cartistics**” using “**PHP & MYSQL**” Technology under my supervision and guidance. During the course of the internship, she demonstrated good analytical skills with a self motivated attitude to learn new things. Her performance exceeded expectations and she was able to complete the project on time.

Wishing her best of luck for her future endeavors!

Authorized Signatory

HIRDESH BHARADWAJ
(Director)



सीएसआईआर केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान
CSIR-CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE
(विज्ञान तथा प्रौद्योगिकी मंत्रालय / MINISTRY OF SCIENCE & TECHNOLOGY, भारत सरकार / GOVT. OF INDIA)
पिलानी, राजस् थन (भारत) / Pilani, Rajasthan - 333031 (INDIA)



Dr. Suchandan Pal
Head, Project Monitoring & Evaluation
Chairman, International Science & Technology Affairs Group

No. PME\S\Trg\BU\2021
Date: 25/06/2021

To,

The Director
Banasthali Vidyapith,
P.O. Banasthali Vidyapith
Rajasthan – 304022

CERTIFICATE OF TRAINING

This is to certify that **Ms. Ayushi Seth, BTBTN17068, B.Tech. (Electronics and Instrumentation Engineering)** of your Institute has completed her project work online at this Institute during **15th January, 2021 to 24th June, 2021**. Her project was on “**Modelling and Simulation of CEERI Network Using EPANET Software**”.

Her conduct during the training was satisfactory.

Head, PME

प्रमुख पी.एम.ई./ Head PME
सीएसआईआर-केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान
CSIR-Central Electronics Engineering Research Institute
पिलानी, राजस्थान / Pilani, Rajasthan-333031

Date: 01/06/2021

TO WHOM IT MAY CONCERN

This is to certify that **Ms. Ayushi Fartyal** student of **B.Tech (Electronics & Instrumentation Engineering)** of **Banasthali Vidhyapith** has successfully completed her internship in **Web Development** from 01 Feb 2021 to 01 June 2021 under the guidance of Mr. Deepak Nouliya (Sr. Software Developer).

During the period of her internship program with us she has been exposed to different process and was found punctual, hard working and inquisitive.

We wish her every success in her life and career.

Greenusys Technology Pvt. Ltd
DIRECTOR
Prakhar Abhishek
PRAKHAR ABHISHEK

Greenusys Technology Pvt. Ltd.

भारतीय शैक्षणिक प्रणाली
प्रमाणित

ISO 9001:2015 Certified

SSPL

भौतिकी प्रयोगशाला,
ठोसावरुवा
Solid State Physics Laboratory, दिल्ली



(Min. of Defence, DRDO)

Lucknow Road, Timarpur, Delhi-110054

प्रशिक्षण प्रमाणपत्र / TRAINING CERTIFICATE

This is to certify that Mr./Ms./ ANJALI YADAV

Student of BANASTHALI VIDYAPITH, BANASTHALI Roll No. BTBTN17095

Branch B.Tech. (Electronics & Instru. Engg.) has completed successfully Summer/Winter Internship for the period from 01 January 2021 to 30 June 2021 Duration Six (06) weeks / months.

Topic of Internship was Electrical Characteristics of ALN thin films on Si substrates by fabricating MIS structure for Electronic Applications
During the training period his/her conduct at SSPL was good.

Group Dir. - HR
Scientist 'G'
KAPIL KUMAR JAIN
Solidstate Physics Laboratory
Lucknow Road, Delhi-110054
Head-HR

File No. 1805.116/HR/SSPL | 2021
Dated 30-06-2021

2. The Assignment completion report to be submitted to HRD in soft copy through LAN (Lotus) by their Guides (Initiating Scientists) to HR.
3. The file name should be trainee's name & branch in PDF or Doc format only.

SERVICE
LOG IN ID

CETPA INFOTECH PRIVATE LIMITED

(An ISO 9001:2015 Certified Company)

Certificate of Training

This is to certify that

Apoorva Gupta

has successfully completed Six Months Winter Training on

"Industrial Automation(PLC & SCADA)"

started from 6 January, 2021

at CETPA INFOTECH PVT. LTD., Noida.



Vikas Kalra

Director

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Anil Kumar Singh

Director-Training



CSIR- CSIO

**CSIR- Central Scientific Instruments Organisation
Sector 30-C, Chandigarh. India**

Certificate of Training

*This is to certify that Aayushi Nautiyal, daughter of Mr Rajesh Nautiyal and a student of Banasthali Vidyapeeth, has trained with the Delhi Centre of CSIR-CSIO from January 4, 2021 to June 24, 2021 with Enrolment Number A2876.
Grade Awarded: Excellent*

U Singh

*Coordinator, Trainee and Apprenticeship Cell
July 22, 2021*

प्रशिक्षण समन्वयक
Training Coordinator
केन्द्रीय वैज्ञानिक उपकरण संगठन
Central Scientific Instruments Organisation
सेक्टर 30-सी, / Sector 30-C, चण्डीगढ़ / Chandigarh



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Gurgaon-122002, Haryana, INDIA

Phone : +91-124-4223207, 4034205

Fax : +91-124-4036038, Cell : +91-95992 21227

E-mail : farelabs@farelabs.com

Website : www.farelabs.com

18th June 2021

TRAINING CERTIFICATE

This is to certify that **Ms. Deepa Jangid**, D/o Mr. Om Prakash from **Banasthali Vidyapith, Rajasthan**, B. Tech Electronics and Instrumentation, has successfully completed her dissertation entitled "**Precision Measurement of Temperature using Standard and their Uncertainty Evaluation**" from 4th January 2021 to 18th June 2021 at **FARE Labs Pvt. Ltd.** and has been awarded excellent grade on the basis of her performance.

She has accomplished the training successfully. We have found her sincere and devoted during the training.


Girija S. Giri
Human Resource Department


Dr. Meenakshi Tripathi
President



FARELABS
FOOD ANALYSIS & RESEARCH LABORATORY
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Gurgaon-122002, Haryana, INDIA
Phone : +91-124-4223207, 4034205
Fax : +91-124-4036038, Cell : +91-95992 21227
E-mail : farelabs@farelabs.com
Website : www.farelabs.com

18th June 2021

TRAINING CERTIFICATE

This is to certify that **Ms. Divya Garg**, D/o Mr. Kanhiya Lal from **Banasthali Vidyapith, Rajasthan**, B. Tech Electronics and Instrumentation, has successfully completed her dissertation entitled "**Precision Measurement of Temperature using Standard and their Uncertainty Evaluation**" from 4th January 2021 to 18th June 2021 at **FARE Labs Pvt. Ltd.** and has been awarded excellent grade on the basis of her performance.

She has accomplished the training successfully. We have found her sincere and devoted during the training.


Girija S. Giri
Human Resource Department


Dr. Meenakshi Tripathi
President

18th June 2021

TRAINING CERTIFICATE

This is to certify that **Ms. Gitika Kwatra**, D/o Mr. Surinder Kwatra from **Banasthali Vidyapith, Rajasthan**, B. Tech Electronics and Instrumentation, has successfully completed her dissertation entitled "**Precision Measurement of Temperature using Standard and their Uncertainty Evaluation**" from 4th January 2021 to 18th June 2021 at **FARE Labs Pvt. Ltd.** and has been awarded excellent grade on the basis of her performance.

She has accomplished the training successfully. We have found her sincere and devoted during the training.



Girija S. Giri
Human Resource Department



Dr. Meenakshi Tripathi
President

18th June 2021

TRAINING CERTIFICATE

This is to certify that **Ms. Tanishka Varshney**, D/o Mr. Devendra Kumar Varshney from **Banasthali Vidyapith, Rajasthan**, B. Tech Electronics and Instrumentation, has successfully completed her dissertation entitled **“Precision Measurement of Temperature using standard and their Uncertainty Evaluation”** from 4th January 2021 to 31st April 2021 at **FARE Labs Pvt. Ltd.** and has been awarded excellent grade on the basis of her performance.

She has accomplished the training successfully. We have found her sincere and devoted during the training.



Rekha Xavier
Human Resource Department



Dr. Meenakshi Tripathi
President

04/06/2021

TRAINING CERTIFICATE

This is to certify that **Ms. Tanishka Varshney**, B. Tech in Electronics and Instrumentation from **Banasthali Vidhyapith, Rajasthan**, has successfully completed her training at **Recube Energy Pvt Ltd.** from 1st May 2021 to 31st May 2021 and has been awarded excellent grade on the basis of her performance.

She has accomplished the training successfully. We have found her sincere and devoted during the training.

For Recube Energy Private Limited



Director

Siddharth Sobti
Director



TechieNest Pvt. Ltd.

Transforming Engineers to Technocrats

To whomsoever it may concern

This is to certify that **Ms. Deepali Jain**, B. Tech 4th year, Electronics & Instrumentation Engineering, student of **Banasthali University, Rajasthan**, has successfully completed 5.5 months Industrial Project based Internship in **Artificial Intelligence** at **TechieNest Pvt Ltd**, from **12th Jan, 2021 to 25th June 2021**.

During the internship she demonstrated good technical skills with a self-motivated attitude to learn new in Technical era. She successfully completed her projects on time.

Projects Title - Facial Expression Recognition based Songs Player.

Points of Evaluation	Max. Marks	Marks Obtained
Project Work	15	14
Assignment Completion	10	9
Attendance	10	9
Communication & presentation Skills	15	13

Internship Coordinator – Mr. Saurabh Bhardwaj

We wish her all the best for her career.



Authorized Signature

Office:- 7 Jawahar Nagar Colony, Gate No. 1, Near Glass Factory, Tonk Road, Jaipur, Rajasthan, INDIA- 302015

ISO 9001:2015 Certified

ISO 9001:2015 Certified

सोसावस्था भौतिकी प्रयोगशाला,
Solid State Physics Laboratory, दिल्ली
Delhi



(Min. of Defence, DRDO)
Lucknow Road, Timarpur, Delhi-110054

प्रशिक्षण प्राप्त / TRAINING CERTIFICATE

This is to certify that Mr./Ms. / Samskriti Sharma

Student of Bamasthali Vidyaapeeth (Rajasthan), B. Tech Roll No. BTBTN17005
Branch Electronic and Instrumentation has completed successfully Summer/Winter Internship for
the period from 01 Jan 2021 to 30 June 2021 Duration (6) Six weeks / months.

Topic of Internship was X-Ray Diffraction Analysis of Semiconductor.

During the training period his/her conduct at SSPL was good.

File No. 1805-25./HR/SSPL | 2021
Dated ... 30-06-2021

Kapil Kumar Jain

KAPIL KUMAR JAIN

Scientist 'G'

Group Dir - HR

Solidstate Physics Laboratory
Head HR Delhi-110054

Cert. No :- CRISP/21/381/ONL06/00698

Reg. ID :- 2021/JSEEIAOL/02/8

CRISP

ISO 9001 : 2015

**CENTRE FOR RESEARCH AND
INDUSTRIAL STAFF PERFORMANCE**

Certificate

This Certificate is awarded to

Ms. Harshita Kushwah, D/o Mr. DVS Kushwah

in recognition of his/her participation in Online

“Internship on Industrial Automation”

Conducted on/during 06-01-2021 to 25-06-2021

PIYUSH JAIN

Course Co-ordinator

Chief Executive Officer

Issue Date :-25-06-2021

(Established Under Indo-German Technical Co-operation)

Opp. Manas Bhawan, Shyamla Hills, Bhopal – 462002, Madhya Pradesh, India

Ph.: 0755-2661401, 4223702, FAX: 0755-4220022,

Website: www.crispindia.com , e-mail: crisponline@crispindia.com



IIT KANPUR

Venkatesh K Subramanian

DEPARTMENT OF
ELECTRICAL ENGINEERING

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R	415, IIT Kanpur - 208016 (INDIA)
O	+91 512 259/392/679 7468/7846
R	+91 512 259/392/679 8354
O	+91 512 259 0063
	venkats@iitk.ac.in



CERTIFICATE

This is to certify that Ms. Nainshi Rai, **(BTBTN17064)** final year student of B.Tech. **(Electronics and Instrumentation)** at **Banasthali Vidhyapith, Rajasthan**, has worked on the topic **“Eye Ball And Eye lid Movement Detection”**. The work reported is original and was carried out by her during the period of 6 months (Jan. 1 – Jun. 30, 2021) under my supervision at 207A/ACES, **Computer Vision Lab, Dept. of Electrical Engineering, Indian Institute of Technology (IIT), Kanpur** for the partial fulfillment of the award of Degree of **Bachelor of Technology** at his parent institution.

(K S Venkatesh)

(01/07/2021)



23rd June, 2021

To Whom It May Concern

This is to certify that Ms. Apoorva Sahai, a student of Banasthali Vidyapith, P.O. Banasthali Vidyapith, Rajasthan, has undergone 21 weeks of Summer Internship in our organization from 1st February, 2021 to 23rd June, 2021.

She had successfully completed the project on **Automation in meltor of Chlorinated Paraffin Plant using PLC**

During the above period, Ms. Apoorva Sahai had shown keen interest in learning the things.

We wish her all the success in her future endeavour.

For Grasim Industries Limited,

Nimisha Singh
DH-HRD

Grasim Industries Limited
Chemical Division Renukoot
P.O.: Renukoot - 231 217,
Distt.: Sonebhadra (U.P.) India

Telephone +91- 5446 - 252044/55/75
Fax +91- 5446 - 252088

Website www.grasim.com
E-mail grasim.renukoot@adityabirla.com
CIN L17124MP1947PLC000410
PAN AAACG4464B

Date: 04th September 2021

INTERNSHIP COMPLETION CERTIFICATE

This is to certify that Ms. Nidhi Sharma has completed her internship in Project department with Addverb Technologies Pvt Ltd from 4th January 2021 to 31st July 2021.

We wish her all the best for her future!

Regards

Ankita

Ankita Modi
Senior Manager- HR
Addverb Technologies Pvt Ltd



Addverb Technologies Pvt. Ltd.

Registered & Corporate Office:

P: 0120 4144 026

E: automate@addverb.in

Plot No. 5, Sector-156, Noida, UP - 201301

CIN: U74999UP2016PTC122944

Website: www.addverb.in

India GST No: 09AAOCA5226F2ZL



CSIR-Central Scientific Instruments Organisation

Sector 30C, Chandigarh - 160030

CERTIFICATE

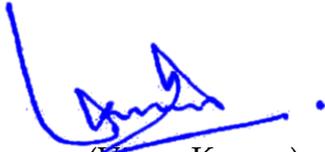
Date: 24.06.2021

The work titled 'A Study On Display Technologies and Its Applications in Cockpit' carried out by Ms. Shubhra Yadav, University Roll No. BTBTN17092 of department of Electronics and Instrumentation, Banasthali Vidyapith, Rajasthan. The work has been carried out under my guidance during her six months internship at CSIR-CSIO, Chandigarh. She has been acquainted with fundamental of display technologies and its applications in the strategic sectors.

During her stay at CSIO, she has shown great interest in literature survey and experimental analysis of the subject assignments.

I wish good luck for her future.

* The work carried out by her is sole property of CSIR-CSIO.



(Vipin Kumar)

विपिन कुमार / VIPAN KUMAR
प्रधान वैज्ञानिक / Principal Scientist
डीएसआइओ - केन्द्रीय वैज्ञानिक उपकरण संगठन
CSIR-Central Scientific Instruments Organisation
सेक्टर 30-सी, चण्डीगढ़ - 160 030, (भारत)
Sector 30-C, Chandigarh - 160 030, (India)



CSIR- CSIO

**CSIR- Central Scientific Instruments Organisation
Sector 30-C, Chandigarh. India**

Certificate of Training

This is to certify that Ayushi Swaraj, daughter of Mr Surya Prakash and a student of the School of Automation, Banasthali Vidyapeeth, has trained with the Mechanical Measurement Instrumentation Division of CSIR-CSIO from January 4, 2021 to May 31, 2021 with Enrolment Number A2837.

Grade Awarded: Excellent

Khing

Coordinator, Trainee and Apprenticeship Cell

June 28, 2021

प्रशिक्षण समन्वयक
Training Coordinator
केन्द्रीय वैज्ञानिक उपकरण संगठन
Central Scientific Instruments Organisation
सेक्टर 30 - सी, / Sector 30-C, चण्डीगढ़ / Chandigarh



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To whomsoever it may concern

This is to certify that **Ms. Aprajita Dwivedi**, B. Tech 4th year, Electronics & Instrumentation Engineering, student of **Banasthali University, Rajasthan**, has successfully completed 5.5 months Industrial Project based Internship in **Artificial Intelligence** at **TechieNest Pvt Ltd**, from **12th January, 2021 to 25th June 2021**.

During the internship she demonstrated good technical skills with a self-motivated attitude to learn new in Technical era. She successfully completed her projects on time.

Projects Title - Jarvis - A personalized Virtual Assistant.

Points of Evaluation	Max. Marks	Marks Obtained
Project Work	15	14
Assignment Completion	10	9
Attendance	10	9
Communication & presentation Skills	15	13

Internship Coordinator – Mr. Saurabh Bhardwaj

We wish her all the best for her career.



Authorized Signature

Office:- 7 Jawahar Nagar Colony, Gate No. 1, Near Glass Factory, Tonk Road, Jaipur, Rajasthan, INDIA- 302015



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Towhomsoever it may concern

This is to certify that **Ms. Divyangi Sharma**, B. Tech 4th year, Electronics & Instrumentation Engineering, student of **Banasthali University, Rajasthan**, has successfully completed 5.5 months Industrial Project based Internship in **Machine Learning** at **TechieNest Pvt Ltd**, from **12th Jan, 2021 to 25th June 2021**.

During the internship she demonstrated good technical skills with a self-motivated attitude to learn new in Technical era. She successfully completed her projects on time.

Projects Title - Drowsiness Detection System using Machine Learning.

Points of Evaluation	Max. Marks	Marks Obtained
Project Work	15	14
Assignment Completion	10	10
Attendance	10	10
Communication & presentation Skills	15	15

Internship Coordinator – Mr. Saurabh Bhardwaj

We wish her all the best for her career.



Authorized Signature

Office:- 7 Jawahar Nagar Colony, Gate No. 1, Near Glass Factory, Tonk Road, Jaipur, Rajasthan, INDIA- 302015



HIL/HRD/ST/2021-22

02.07.2021

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms.Geetika Batra** has successfully completed her internship of 6 MONTHS i.e. from 11.01.2021 to 30.06.2021 at our CRI E1 Noida and has submitted a project report under the guidance of **Mr. Deepak Kumar Baid.**

She is a sincere and hardworking individual with pleasing manners. We wish good luck for her future.

As a green initiative, no hardcopy certificate will be issued in this regard.

For **Havells India Ltd.**

General Manager-Human Resources

HAVELLS INDIA LTD.

Corporate Office: QRG Towers, 2D, Sector 126, Expressway, Noida - 201304, U.P (INDIA)
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GSTIN: 09AAACH0351E222





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To whomsoever it may concern

This is to certify that **Ms. Somya Khandelwal**, B. Tech 4th year, Electronics & Instrumentation Engineering, student of **Banasthali University, Rajasthan**, has successfully completed 5.5 months Industrial Project based Internship in **Artificial Intelligence** at **TechieNest Pvt Ltd**, from **12th January, 2021 to 25th June 2021**.

During the internship she demonstrated good technical skills with a self-motivated attitude to learn new in Technical era. She successfully completed her projects on time.

Projects Title - AI based attendance system.

Points of Evaluation	Max. Marks	Marks Obtained
Project Work	15	14
Assignment Completion	10	8
Attendance	10	9
Communication & presentation Skills	15	14

Internship Coordinator – Mr. Saurabh Bhardwaj

We wish her all the best for her career.



Authorized Signature

Office:- 7 Jawahar Nagar Colony, Gate No. 1, Near Glass Factory, Tonk Road, Jaipur, Rajasthan, INDIA- 302015



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To whom so ever it may concern

This is to certify that **Ms. Stuti Srivastava**, B. Tech 4th year, Electronics & Instrumentation Engineering, student of **Banasthali University, Rajasthan**, has successfully completed 5.5 months Industrial Project based Internship in **Machine Learning** at **TechieNest Pvt Ltd**, from **12th January, 2021 to 25th June 2021**.

During the internship she demonstrated good technical skills with a self-motivated attitude to learn new in Technical era. She successfully completed her projects on time.

Projects Title - Development of smart weather application using Machine Learning.

Points of Evaluation	Max. Marks	Marks Obtained
Project Work	15	14
Assignment Completion	10	9
Attendance	10	9
Communication & presentation Skills	15	13

Internship Coordinator – Mr. Saurabh Bhardwaj

We wish her all the best for her career.



Authorized Signature

Office:- 7 Jawahar Nagar Colony, Gate No. 1, Near Glass Factory, Tonk Road, Jaipur, Rajasthan, INDIA- 302015

5

ISO 9001:2015 Certified

भौतिकी प्रयोगशाला, दिल्ली
भौसावरुण
Solid State Physics Laboratory, Delhi:



(Min. of Defence, DRDO)

Lucknow Road, Timarpur, Delhi-110054

प्रशिक्षण प्रमाणपत्र / TRAINING CERTIFICATE

This is to certify that Mr./Ms./ KHUSHBOO

Student of BANASTHALI VIDYAPITH, RAJASTHAN Roll No. BTBTN17050

Branch B.TECH (E & I) has completed successfully Summer/Winter Internship for
the period from 1st JAN 2021 to 30th JUNE 2021 Duration 51x (06) weeks / months.

Topic of Internship was QUANTUM COMPUTING WITH TRAPPED IONS QUBITS

During the training period his/her conduct at SSPL was good.

Head-HR

M. S. Khosla

File No. 1805..137./HR/SSPL/2021
Dated .. 15-07-2021

Date: 24-June-2021

To,
The Head of Department
School Of Automation
Banasthali Vidyapith
Rajasthan, India

Sub: Internship Certificate

Respected Sir/Ma'am,

This is to certify that Ms. **Khushi Jaiswal**, ID No: **BTBTN17100**, student of B.tech Electronics and Instrumentation branch from Banasthali Vidyapith. She has worked under supervision during her internship in **AdvanceTech India Pvt. Ltd.** I am pleased to state that she has worked hard in achieving her allotted goal and she has been able to present a good picture of the concerned works based upon duration of 5 months.

Khushi Jaiswal possesses a good moral character and pleasing personality. I wish her every success in life.

Thanking you
For AdvanceTech Pvt.Ltd.



Arvind Dixit
Authorized Signature



सीएसआईआर केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान
CSIR-CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE
(विज्ञान तथा प्रौद्योगिकी मंत्रालय / MINISTRY OF SCIENCE & TECHNOLOGY, भारत सरकार / GOVT. OF INDIA)
पिलानी, राजस् थन (भारत) / Pilani, Rajasthan - 333031 (INDIA)



Dr. Suchandan Pal
Head, Project Monitoring & Evaluation
Chairman, International Science & Technology Affairs Group

No. PME\S\Trg\BU\2021
Date: 21/06/2021

To,

The Director
Banasthali Vidyapith,
P.O. Banasthali Vidyapith
Rajasthan – 304022

CERTIFICATE OF TRAINING

This is to certify that **Ms. Kusum Rajput (BTBTN17088)**, **B. Tech. (Electronics and Instrumentation)** of your Institute has completed her project work online at this Institute during **11th January, 2021 to 10th June, 2021**. Her project was on **“MANAGING WATER DISTRIBUTION USING SWG TEST RIG”**.

Her conduct during the training was satisfactory.

Head, PME

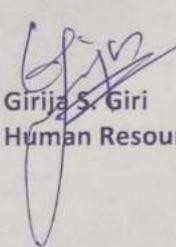
प्रमुख पी.एम.ई./Head PME
सीएसआईआर-केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान
CSIR-Central Electronics Engineering Research Institute
पिलानी, राजस्थान / Pilani, Rajasthan-333031

18th June 2021

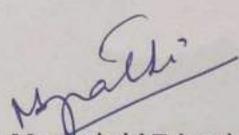
TRAINING CERTIFICATE

This is to certify that **Ms. Natasha Pandey**, D/o Mr. Mohit Kumar Pandey from **Banasthali Vidyapith, Rajasthan**, B. Tech Electronics and Instrumentation, has successfully completed her dissertation entitled "**Study of Test and Measuring Equipment & Measurement Uncertainty**" from 4th January 2021 to 18th June 2021 at **FARE Labs Pvt. Ltd.** and has been awarded excellent grade on the basis of her performance.

She has accomplished the training successfully. We have found her sincere and devoted during the training.



Girija S. Giri
Human Resource Department



Dr. Meenakshi Tripathi
President



FARE LABS Private Limited
L-1713, DLF Phase II, M. G. Road,
Gurgaon 122002, Haryana, INDIA
Phone : +91-124-4272057-06, 4004205
Fax : +91-124-4009036, Cell : +91-93126-64033
E-mail : farelabs@farelabs.com
Website : www.farelabs.com

18th June 2021

TRAINING CERTIFICATE

This is to certify that **Ms. Mahak Garg**, D/o Mr. Pankaj Garg from **Banasthali Vidyapith, Rajasthan**, B. Tech Electronics and Instrumentation, has successfully completed her dissertation entitled **“Study Of Test & Measuring Equipment & Measurement Uncertainty”** from 4th January 2021 to 20th April 2021 at **FARE Labs Pvt. Ltd.** and has been awarded excellent grade on the basis of her performance.

She has accomplished the training successfully. We have found her sincere and devoted during the training.


Rekha Xavier
Human Resource Department


Dr. Meenakshi Tripathi
President

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<http://www.cetpainfotech.com>query@cetpainfotech.comRef. No. C/PL/DDN/2102/31Date 31 May 2021**INTERNSHIP CERTIFICATE**

This is to certify that Ms Mahak Garg, D/o Pankaj Garg student of B.PTech (Batch 2017-2021), at Banasthali Vidyapith, Jaipur has successfully completed her compulsory Internship with us, as part of her course curriculum.

The duration of her Internship was 25th April 2021 to 30th May 2021 on the project "Alarm System" using "PLC-SCADA".

*under the supervision of Mr. Govind Sati, designation Industrial Automation & MATLAB Expert, during the Internship we found her quite sincere, hardworking, and her conduct & behavior was good.

We wish her all success in her academic endeavors and in life.

With Regards,

Yogesh Kumar
Branch Manager, Dehradun

CETPA InfoTech Pvt. Ltd.



INDIA CORP. OFF. : NOIDA

Contact : +91-120-3060555, 3060556

INDIA BR. OFF. : LUCKNOW

Contact : +91-522-6590802, +91-9258017974

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Phone : +91-124-4272057-06, 4004205
Fax : +91-124-4009036, Cell +91-99126-64533
E-mail : farelabs@farelabs.com
Website : www.farelabs.com

18th June 2021

TRAINING CERTIFICATE

This is to certify that **Ms. Anjali Patel**, D/o Mr. Rameshwar Patel from **Banasthali Vidyapith, Rajasthan**, B. Tech Electronics and Instrumentation, has successfully completed her dissertation entitled **“Study of Test & Measuring Equipment & Measurement Uncertainty”** from 4th January 2021 to 26th April 2021 at **FARE Labs Pvt. Ltd.** and has been awarded excellent grade on the basis of her performance.

She has accomplished the training successfully. We have found her sincere and devoted during the training.


Rekha Xavier
Human Resource Department


Dr. Meenakshi Tripathi
President



CERTIFICATE OF **TRAINING**

This Certificate is proudly presented to

Anjali Patel

who successfully completed Online training in **C Programming** in
Summer Internship Programme conducted **TechieNest Pvt. Ltd.**
from 15^h May to 15th June, 2021.

Enrollment Id: SITPR1001

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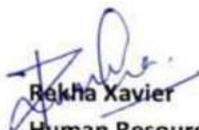
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Gurgaon 122002, Haryana, INDIA
Phone : +91-124-4272057-06, 4004205
Fax : +91-124-4009036, Cell +91-90126-64033
E-mail : farelabs@farelabs.com
Website : www.farelabs.com

18th June 2021

TRAINING CERTIFICATE

This is to certify that **Ms. Mahima Srivastava**, D/o Mr. Vimal Chandra Srivastava from **Banasthali Vidyapith, Rajasthan**, B. Tech Electronics and Instrumentation, has successfully completed her dissertation entitled **“Study of Test & Measuring Equipment & Measurement Uncertainty”** from 4th January 2021 to 30th April 2021 at **FARE Labs Pvt. Ltd.** and has been awarded excellent grade on the basis of her performance.

She has accomplished the training successfully. We have found her sincere and devoted during the training.


Rekha Xavier
Human Resource Department


Dr. Meenakshi Tripathi
President



CERTIFICATE OF **TRAINING**

This Certificate is proudly presented to

Mahima Srivastava

who successfully completed Online training in **C Programming** in
Summer Internship Programme conducted **TechieNest Pvt. Ltd.**
from 15^h May to 15th June, 2021.

Enrollment Id: SITPR1002

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Reg. ID :- 2021/JSEEIIAOL/02/3

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Certificate

This Certificate is awarded to

Ms. Manya Srivastava, D/o Mr. Shirish Chandra Srivastava

in recognition of his/her participation in Online

“Internship on Industrial Automation”

Conducted on/during 06-01-2021 to 25-06-2021

PIYUSH JAIN

Course Co-ordinator

Chief Executive Officer

Issue Date :-25-06-2021

(Established Under Indo-German Technical Co-operation)

Opp. Manas Bhawan, Shyamla Hills, Bhopal – 462002, Madhya Pradesh, India

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Website: www.crispindia.com , e-mail: crisponline@crispindia.com

Cert. No :- CRISP/21/230/ONL06/00699

Reg. ID :- 2021/JSEEIAOL/02/7

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ISO 9001 : 2015

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Certificate

This Certificate is awarded to

Ms. Snigdha Pathak, D/o Mr. Shishir Kumar Pathak

in recognition of his/her participation in Online

“Internship on Industrial Automation”

Conducted on/during 06-01-2021 to 25-06-2021

PIYUSH JAIN

Course Co-ordinator

Chief Executive Officer

Issue Date :-25-06-2021

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Ph.: 0755-2661401, 4223702, FAX: 0755-4220022,

Website: www.crispindia.com , e-mail: crisonline@crispindia.com



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CSIR-CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE
(विज्ञान तथा प्रौद्योगिकी मंत्रालय / MINISTRY OF SCIENCE & TECHNOLOGY, भारत सरकार / GOVT. OF INDIA)
पिलानी, राजस्त् (भारत) / Pilani, Rajasthan - 333031 (INDIA)



Dr. Suchandan Pal
Head, Project Monitoring & Evaluation
Chairman, International Science & Technology Affairs Group

No. PME\S\Trg\BU\2021
Date: 25/06/2021

To,

The Director
Banasthali Vidyapith,
P.O. Banasthali Vidyapith
Rajasthan – 304022

CERTIFICATE OF TRAINING

This is to certify that **Ms. Muskan Gupta, BTBTN17027, B.Tech. (Electronics and Instrumentation Engineering)** of your Institute has completed her project work online at this Institute during **15th January, 2021 to 24th June, 2021**. Her project was on **“Microthermal Mass Airflow Sensor Using MEMS (micro-electromechanical System) Technology”**.

Her conduct during the training was satisfactory.

Head, PME

प्रमुख पी.एम.ई. / Head PME
सीएसआईआर-केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान
CSIR-Central Electronics Engineering Research Institute
पिलानी, राजस्थान / Pilani, Rajasthan-333031

SYNOPSIS
ON
AUTOMATED CENTRALIZED GREASE LUBRICATION SYSTEM.

To be submitted by

NANCY SHARMA

(BTBTN17102)

Under the supervision of

VIVEK G.HEGDE AND VASUDEV MALLUR

LINCOLN HELIOS INDIA PRIVATED LIMITED



FOR THE AWARD OF THE DEGREE

OF

B . Tech

Electronics and instrumentation



SCHOOL OF AUTOMATION
BANASTHALI VIDYAPITH
BANASTHALI – 304022
Jan-June (EI-4th year)

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CHAPTER-1

INTRODUCTION

The development of lubrication and its application in machine and engine component general, began in early 70's of last century. From the view of improving lubrication in recent years more and more stress is given on the constant increase in materials and lubricants performance. The lubrication can be defined as a process by which we introduce a layer of lubricant to reduce friction and reduces the wear between the two surfaces, which are in relative motion to each other. This process includes the following activities: -the cleaning of lubricants,-the checking the quantity of lubricants, refilling lubricants, Choosing with the correct lubrication system ensures firmness and allocates lubricants are best for a particular use. The abandonment machines will be avoided and the cost of system maintenance will be drastically reduced. Automatic lubrication system (ALS), defined as a centralized lubrication system, is a system that provides metered amounts of lubricant to multiple locations on machine while the machine is operating. Centralized grease lubrication systems are widely used in industrial and heavy-duty mobile equipment applications to lubricate multiple points on a machine. These systems dimensions vary from a simple single-port lubricator to complex dual-line, overturn units employing timers and alarms to deliver grease reliably to hundreds of grease points. The design parameters of centralized grease systems include the volume and frequency of grease required at each point, the number of notch requiring grease, performing conditions, pump pressure, line diameter and span to the grease points. When used and preserved properly, centralized grease systems can help enhance technician productivity and simplify equipment maintenance processes. Automatic centralized lubrication system provide continuous lubrication with easy system monitoring and simple blockage control , suitable for chassis and other wide range of applications. Centralized grease systems are designed principally to make the work environment safer for maintenance personnel by simplifying the process of accessing remote grease points, especially in restricted spaces, when equipment is in operation.

1.1 Objective

1.1.1 Why this project?

The right lubricant in the right quantity at the right time to the right lubrication point. Centralized automatic lubrication systems are an effective way to increase machine availability while reducing reliance on scarce talent. These systems provide the appropriate lubrication quantity at the correct intervals , minimizing friction and wear and optimizing bearing and machinery service life.

Designed to lubricate individual machines or complete plants , automatic lubrication systems provide proper , precise lubricant replenishment to all required points , enabling a range of benefits in the process.

1.1.2 What exists now , what is required?

At present automatic lubrication system for OEM trucks to fleet owners(consists of pump with timer , distributors and tubings). The automatic lubrication system has to be replenished with grease once it has been used up. The customers do not refill the grease reservoir timely and this leads to dry running of pump. In order to avoid such failures and to prevent automatic lubrication system not effective , we propose remote monitoring feature.

1.1.3 Technology

The technology which we use here is AWS IoT which provide the cloud services that connect IoT devices to other devices and AWS cloud services. AWS IoT is the part of AWS cloud services. It is an amazon web service platform that enables secure bi-directional communication between internet connected devices such as sensors , microcontroller , development boards and AWS cloud.

In recent years , the Internet of Things (IoT) have been hot topic. With all this data being produced , new applications such as predictive maintenance are possible.

Predictive maintenance monitor equipment health to avoid future failures during operation. It uses predictive algorithms with data from equipment sensors to estimate when equipment will fail. It also pinpoints the root cause of problems in complex machinery and helps to identify which parts need to be repaired or replaced. This way , we can minimize downtime and maximize equipment lifetime.

1.1.4 Expected performance and limitations

Lubrication is a critical aspect in machine reliability. Yet for many operators , manual lubrication is becoming too much of a challenge. By finding a simpler , smarter way to lubricate machinery , we can maintain reliability

without the costs and effort of manual lubrication. Although the initial costs of installing an automatic lubrication system are higher the investment pays off quicker than we might think. Firstly, the labor costs are significantly reduced. But we also make considerable savings by reducing downtime and extending component life.

There is also no need to stop the machine for relubrication-we simply need to keep the lubrication system filled and maintained . An automatic lubrication system lubricates continuously while the machine is working. This increases efficiency as there is no need to stop machinery for lubrication. Lubricating while bearings are rotating also improves the distribution of lubricant. A small amount of grease remains flowing , keeping out contamination even when machine is operating in harsh environment.

Integrating smart sensors and monitoring devices into a lubrication process, operators can get an earlier warning of machine failures and take preventive action.

1.1.5 Benefits

- Significant savings in repair and spare costs
- Increased machine reliability
- Up to 50% savings in lubricant costs due to accurate timing and dosing of lubricants
- Fewer shutdown and production losses
- Reduced environmental impact
- Greater workers safety

Applications

- Steel industry
- Railroad applications
- Machine tools
- Automation
- On/off-road machines
- Mining and cement industry

CHAPTER-2

FEASIBILITY STUDY

2.1 Is Technically feasible

Yes Automatic lubrication system is technically feasible because these systems are designed to lubricate individual machines or complete plants , automatic lubrication systems provide proper , precise lubricant replenishment to all required points , enabling a range of benefits in the process. These system provide the appropriate lubrication quantity at the correct intervals, minimizing friction and wear and optimizing bearing and machinery service life.

2.2 Will be profitable

Yes it will be profitable because it is smarter way to lubricate machinery , we could maintain reliability without the costs and effort of manual lubrication. Although the initial costs of installing an automatic lubrication system are higher , the investment pays off quicker than we might think. Firstly , labor costs are significantly reduced. But we also make considerable savings by reducing downtime and extending component life.

2.3 How this project will be helpful

This project will be helpful because there is no need to stop the machine for relubrication -we simply need to keep the lubrication system filled and maintained. An automatic lubrication system lubricates continuously while the machine is working. This increases the efficiency as there is no need to stop machinery for lubrication.

2.4.Is feasible to conclude within the duration of your training period

Yes, it is feasible to conclude within the duration of my training period.

CHAPTER-3

METHODOLOGY

1. Concept design

2. Define attributes to be measured

e.g. pressure , current , primary distributor signal

3. Collection of data and study relationship

4. Algorithm design

5. Prototype controller

6. Testing of prototype

7. Assembling

CHAPTER-4

FACILITIES/COMPONENTS/SOFTWARE REQUIRED FOR THE PROPOSED WORK.

4.1.HARDWARE REQUIREMENT

- Grease Reservoir
- Grease pump
- Level sensor
- Motor
- Primary distributor
- Secondary distributor
- Controller
- GPS tracker

4.2 SOFTWARE REQUIREMENT

- AWS IOT
- Microcontroller compiler

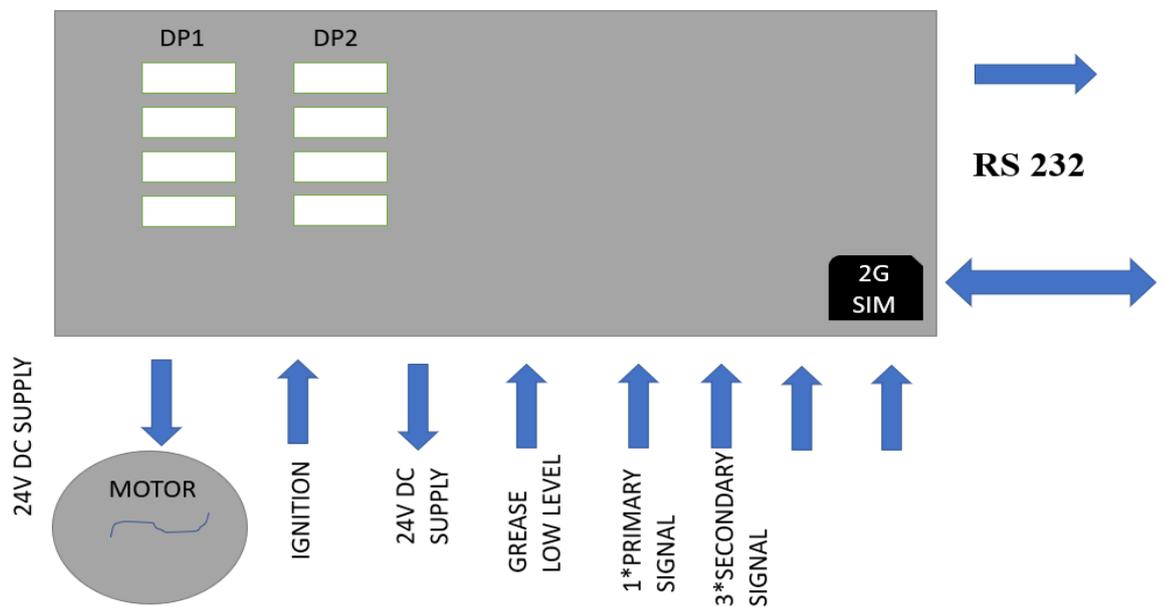


Fig.4.1-CONTROLLER

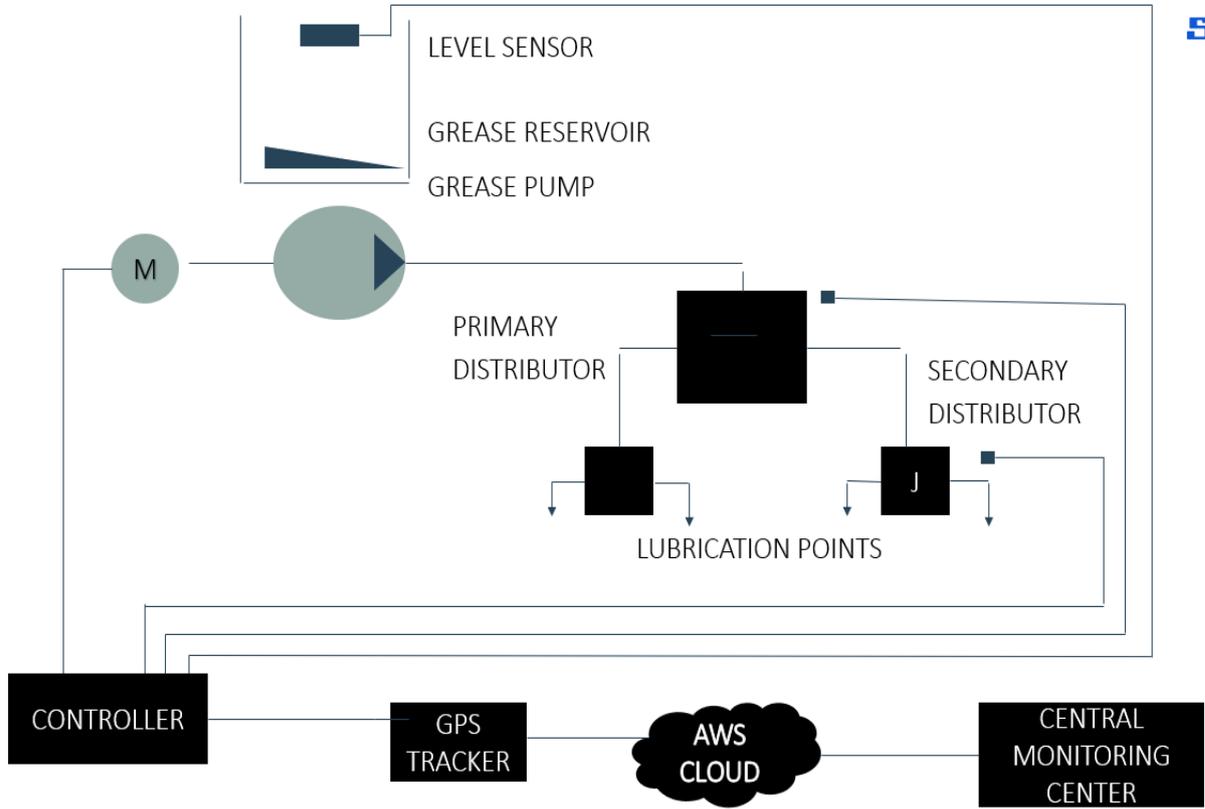


Fig.4.2-BLOCK DIAGRAM

BIBLIOGRAPHY

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- [website-skf.com/in/products/lubrication-management/automatic-lubrication-system](https://www.skf.com/in/products/lubrication-management/automatic-lubrication-system)



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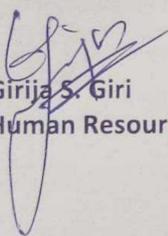
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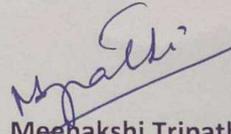
18th June 2021

TRAINING CERTIFICATE

This is to certify that **Ms. Natasha Pandey**, D/o Mr. Mohit Kumar Pandey from **Banasthali Vidyapith, Rajasthan**, B. Tech Electronics and Instrumentation, has successfully completed her dissertation entitled "**Study of Test and Measuring Equipment & Measurement Uncertainty**" from 4th January 2021 to 18th June 2021 at **FARE Labs Pvt. Ltd.** and has been awarded excellent grade on the basis of her performance.

She has accomplished the training successfully. We have found her sincere and devoted during the training.


Girija S. Giri
Human Resource Department


Dr. Meenakshi Tripathi
President



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18th June 2021

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This is to certify that **Ms. Mahak Garg**, D/o Mr. Pankaj Garg from **Banasthali Vidyapith, Rajasthan**, B. Tech Electronics and Instrumentation, has successfully completed her dissertation entitled **“Study Of Test & Measuring Equipment & Measurement Uncertainty”** from 4th January 2021 to 20th April 2021 at **FARE Labs Pvt. Ltd.** and has been awarded excellent grade on the basis of her performance.

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Rekha Xavier
Human Resource Department


Dr. Meenakshi Tripathi
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<http://www.cetpainfotech.com>query@cetpainfotech.comRef. No. C/PL/DDN/2102/31Date 31 May 2021**INTERNSHIP CERTIFICATE**

This is to certify that Ms Mahak Garg, D/o Pankaj Garg student of B.PTech (Batch 2017-2021), at Banasthali Vidyapith, Jaipur has successfully completed her compulsory Internship with us, as part of her course curriculum.

The duration of her Internship was 25th April 2021 to 30th May 2021 on the project "Alarm System" using "PLC-SCADA".

*under the supervision of Mr. Govind Sati, designation Industrial Automation & MATLAB Expert, during the Internship we found her quite sincere, hardworking, and her conduct & behavior was good.

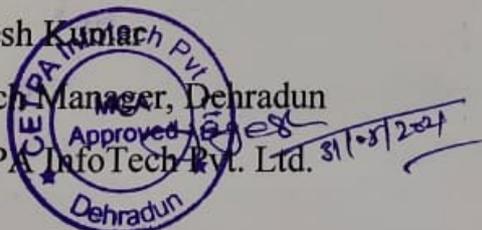
We wish her all success in her academic endeavors and in life.

With Regards,

Yogesh Kumar

Branch Manager, Dehradun

CETPA InfoTech Pvt. Ltd.



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Website : www.farelabs.com

18th June 2021

TRAINING CERTIFICATE

This is to certify that **Ms. Anjali Patel**, D/o Mr. Rameshwar Patel from **Banasthali Vidyapith, Rajasthan**, B. Tech Electronics and Instrumentation, has successfully completed her dissertation entitled **“Study of Test & Measuring Equipment & Measurement Uncertainty”** from 4th January 2021 to 26th April 2021 at **FARE Labs Pvt. Ltd.** and has been awarded excellent grade on the basis of her performance.

She has accomplished the training successfully. We have found her sincere and devoted during the training.


Rekha Xavier
Human Resource Department


Dr. Meenakshi Tripathi
President



CERTIFICATE OF **TRAINING**

This Certificate is proudly presented to

Anjali Patel

who successfully completed Online training in **C Programming** in
Summer Internship Programme conducted **TechieNest Pvt. Ltd.**
from 15^h May to 15th June, 2021.

Enrollment Id: SITPR1001

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18th June 2021

TRAINING CERTIFICATE

This is to certify that **Ms. Mahima Srivastava**, D/o Mr. Vimal Chandra Srivastava from **Banasthali Vidyapith, Rajasthan**, B. Tech Electronics and Instrumentation, has successfully completed her dissertation entitled **“Study of Test & Measuring Equipment & Measurement Uncertainty”** from 4th January 2021 to 30th April 2021 at **FARE Labs Pvt. Ltd.** and has been awarded excellent grade on the basis of her performance.

She has accomplished the training successfully. We have found her sincere and devoted during the training.


Rekha Xavier
Human Resource Department


Dr. Meenakshi Tripathi
President



CERTIFICATE OF **TRAINING**

This Certificate is proudly presented to

Mahima Srivastava

who successfully completed Online training in **C Programming** in
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from 15^h May to 15th June, 2021.

Enrollment Id: SITPR1002

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Government of India
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National Remote Sensing Centre
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Telephone : +040-23879572-76
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Fax : +040-23878648

CERTIFICATE

This is to certify that the project entitled “**Simulation of Brushless AC Servo Motor for LEO Applications**” is a bonafide work carried out by Neeti Khatri {ID. BTBTN17016} from Banasthali Vidyapith at **National Remote Sensing Centre, Hyderabad** during the period from **01st January, 2021 to 31st May, 2021** in virtual mode.

The project report is being submitted in partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in Electronics & Instrumentation Engineering at Banasthali Vidyapith, Banasthali. She has completed the assigned task satisfactorily through virtual mode of guidance.

This is a record of bonafide work carried out by her under our guidance and supervision.

Dr. Heera Singh R
Sci/Engineer-‘SF’
Servo Systems Division,
Servo & Automation Group,
SDR&ISA, NRSC.

Mr. G.B. Baig
Head of Servo System Division,
National Remote Sensing Centre,
ISRO, Department of Space,
Government of India,
Hyderabad-37



Prashikshan -2021



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This is to certify that Nisha Singh (Reg. No. VT20210115),
Student of BANASTHALI VIDYAPITH UNIVERSITY,
has undergone Vocational Training Program at Tata Steel Ltd., Jamshedpur from
11-January ,2021 to 31-May ,2021 . The details of the programme are as under:

Department Covered	EIT
Project Title	FAMILIARIZATION OF POWER PLANT INSTRUMENTATION

He/She has successfully completed the Programme

Ammi kumari

Place : Jamshedpur
Date : 18-06-2021
Ref No : VT20210115

Coordinator
Vocational Training
Tata Steel Ltd

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CHAMBAL FERTILISERS AND CHEMICALS LIMITED

June 22, 2021

CERTIFICATE

Institute's Name : Banasthali Vidhyapith

Student's Name : Ms. Peunal Goyal

Branch : B. Tech - Electronics and Instrumentation

Training Commenced : 1st Jan 2021

Completed On : 31st May 2021

Topic of training : Automation and control system


Chetan Gupta
Manager – HR



Registration No:
2021/CCLP/Tr-102/21

DATE: 01/06/2021

TO WHOM SO EVER IT MAY CONCERN

This is certified that Miss. Prachi Sharma has undergone 4 months of Industrial Training in CloudCodiots LLP, from 01/02/2021 to 31/05/2021 & worked at Salesforce Force.com platform under the Guidance of Mr. Ravi Kumar Sharma, Research & Development Analyst. During her tenure with us for the above period, we found her efficient, her character and conduct were good. We wish her success in her future assignment.

Sajal Bansal
Sajal Bansal
Founder & CEO
CloudCodiots LLP

Cert. No :- CRISP/21/137/ONL06/00702

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Conducted on/during 06-01-2021 to 25-06-2021

PIYUSH JAIN

Course Co-ordinator

Chief Executive Officer

Issue Date :-25-06-2021

(Established Under Indo-German Technical Co-operation)

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नवरंगपुरा, अहमदाबाद - 380 009, भारत.



Physical Research Laboratory
(A Unit of Dept. of Space, Govt. of India)
Navrangpura, Ahmedabad - 380 009, India

PROVISIONAL CERTIFICATE

This is to certify that

Ms. Aditi Sharma

(BTBTN17061)

of

Banasthali Vidyapith, Rajasthan

has successfully completed her project work on

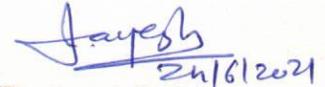
“Modelling and Analysis of Schumann Resonance due to Lightning”

in the PSDN division of

Physical Research Laboratory, Ahmedabad

during 9 February -24 June 2021 under the supervision of Dr. Jayesh P. Pabari.

Date 24-6-2021



(Dr. Jayesh P. Pabari)

Researcher, PSDN

PRL, Ahmedabad



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सोसावस्था भौतिकी प्रयोगशाला,
Solid State Physics Laboratory, दिल्ली
दिल्ली



(Min. of Defence, DRDO)

Lucknow Road, Timarpur, Delhi-110054

प्रशिक्षण प्राप्तपत्र / TRAINING CERTIFICATE

File No: 1805.117 JHR/SSPL / 2021
Dated ... 30-06-2021

This is to certify that Mr./Ms./ Puja Kumari

Student of Banasthali Vidya-pith (B. Tech) Roll No. 1712904

Branch Electronics & Instrumentation has completed successfully Summer/Winter Internship for
the period from 01/01/2021 to 30/06/2021 Duration (6) Six weeks/months.

Topic of Internship was X-Ray Reflectivity of Thin films

During the training period this/her conduct at SSPL was good.

Kapil Kumar Jain

KAPIL KUMAR JAIN

Scientist 'G'

Group Dir. - HR

Solidstate Physics Laboratory
Lucknow Road, Delhi-110054

Head-HR



सीएसआईआर केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान
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पिलानी, राजस् थन (भारत) / Pilani, Rajasthan - 333031 (INDIA)



Dr. Suchandan Pal
Head, Project Monitoring & Evaluation
Chairman, International Science & Technology Affairs Group

No. PME\S\Trg\BU\2021
Date: 22/06/2021

To,

The Director
Banasthali Vidyapith,
P.O. Banasthali Vidyapith
Rajasthan – 304022

CERTIFICATE OF TRAINING

This is to certify that **Ms. Rahat Bhatti, B.Tech. (Electronics and Instrumentation Engineering)** of your Institute has completed her project work online at this Institute during **15th January, 2021 to 10th June, 2021**. Her project was on “**Configurable Signal Conditioning of Different Sensors**”.

Her conduct during the training was satisfactory.

Head, PME

प्रमुख पी.एम.ई. / Head PME
सीएसआईआर-केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान
CSIR-Central Electronics Engineering Research Institute
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PIYUSH JAIN

Course Co-ordinator

Chief Executive Officer

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TO WHOM IT MAY CONCERN

Certified that **Ms. Rimjhim Saxena**, Student of B.Tech. (Electronics & Instrumentation Engg.), Banasthali Vidyapith, Banasthali completed her Training from 25th Jan. to 31st May, 2021 at this Institute.

During this period she worked on "Mobile Robot Path Planning and Motion Control" under the supervision of Er. Ravindra Singh Bisht, Sr. Scientist, AIMS Group, CSIR- Central Building Research Institute, Roorkee

She has been found sincere and hardworking during the training period.

(Nadeem Ahmad)
Senior Principal Scientist & Training Coordinator

Nadeem Ahmad

Senior Principal Scientist & Group Leader
Student Training & Mentoring Group
CSIR-Central Building Research Institute
Roorkee-247 667 (Uttarakhand)

Date : 01.06.2021

PRIVATE AND CONFIDENTIAL

24th June'21

TO WHOMSOEVER IT MAY CONCERN

Subject – Internship Certificate

This is to certify that **Ritika Goyal (SESA606631)** from **Banasthali Vidyapith** has completed her Internship with us at **Schneider Electric Infrastructure Limited** from *4th January'21 to 19th June'21* and has worked on the below topic:

- ***ESTABLISHING OF 2X 50 MVA, 132/33 KV GIS SUBSTATION***

She was reporting to **Kaushal Shivnani (SESA184329)**

During the period of internship, we found **Ritika Goyal** to be sincere, hardworking and a keen learner.

On behalf of Schneider Electric, we would like to thank you & wish you every success in future endeavors.

Yours faithfully,
Schneider Electric Infrastructure Limited

DocuSigned by:

Siva Emani

5DEFB443D885490...

Siva Emani
Head HR Services, Greater India

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CERTIFICATE

This is to certify that the project entitled "TCP/IP Interface for Data Path Controller " is a bonafide work carried out by Riya Katiyar (Reg.no. BTBTN17097) at **National Remote Sensing Centre, Hyderabad** during the period from **01 January,2021** to **01 June,2021** in virtual mode under my virtual guidance.

The student is pursuing B. Tech (EIE) from Banasthali Vidyapith, Banasthali.

She has completed the assigned task successfully in virtual mode.

Ranjeet Kumar
15/06/2021

Ranjeet Kumar
Scientist/Engineer, SE
RDASG, NRSC

A. Venugopal
15.06.2021

A.Venugopal
GROUP HEAD
RDASG,SDRISA
NRSC

ए वेणुगोपाल /A. VENUGOPAL

ग्रुप प्रधान / Group Head
वास्तविक काल आंकड़ा अभिलेखन प्रणाली ग्रुप
Real-time Data Archival Systems Group
उपग्रह आंकड़ा अर्जन एवं इन्जैस्ट प्रणाली क्षेत्र
Satellite Data Reception & Ingest Systems Area
राष्ट्रीय सुदूर संवेदन केन्द्र /National Remote Sensing Centre
अंतरिक्ष विभाग, भारत सरकार /Dept. of Space, Govt. of India
बालानगर, हैदराबाद /Balanagar, Hyderabad (TS)-37



CSIR- CSIO

**CSIR- Central Scientific Instruments Organisation
Sector 30-C, Chandigarh. India**

Certificate of Training

This is to certify that Roopal Borgaonkar, daughter of Mr Nitin Borgaonkar and a student of the School of Automation, Banasthali Vidyapeeth, has trained with the BioMedical Instrumentation Division of CSIR-CSIO from January 4, 2021 to May 31, 2021 with Enrolment Number A2836.

Grade Awarded: Very Good

V. Singh

Coordinator, Trainee and Apprenticeship Cell

June 28, 2021

प्रशिक्षण समन्वयक
Training Coordinator
केन्द्रीय वैज्ञानिक उपकरण संगठन
Central Scientific Instruments Organisation
सेक्टर 30-सी, / Sector 30-C, चण्डीगढ़ / Chandigarh

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Certificate

Date: 17 -06-2021

This is to certify that the project entitled **"The Study and Analysis of Satellite Ground Station in S & X band Frequency"** is a bonafide work carried out by **Russa Pal** at National Remote Sensing Centre, Hyderabad during the period from 09 Jan 2021 to June 30, 2021 in virtual mode under my virtual guidance.

The student is pursuing B.Tech Electronics and Instrumentation of College of Engineering and Technology, Banasthali, Vidyapeeth.

Russa Pal, completed project work under my guidance, and results given in this project report are true.

Russa Pal is regular and learned about Ground Station parameters. The behavior and knowledge is very good. She has completed the assigned task successfully in virtual mode.



डॉ. सत्यनारायण
Project Guide 17/06/2021

Dr. A.N. Satyanarayana
Scientist SG, Group Head
Satellite Data Reception & Ingest Systems Area
National Remote Sensing Centre
Indian Space Research Organization, Dept of Space
Govt of India, Hyderabad, Telangana - 500 037

NIS-21/I-Tr-366

Date: 19/06/2021

This is to certify that **Ms. SHIVANI KUMARI (BANASTHALI VIDYAPITH, JAIPUR, RAJASTHAN)** has done Internship at NUMERIC INFOSYSTEM PRIVATE LIMITED From **5 JAN, 2021 to 19 JUNE, 2021.**

Technology : REACT JS, NODE JS

We found her sincere, hardworking, and technically sound and result oriented. She worked well as a part of team during her tenure. We take this opportunity to thank her and wish her all the best for her future.

For
NUMERIC INFOSYSTEM PVT. LTD.


(Authorized Signatory) 



राष्ट्रीय प्रौद्योगिकी संस्थान, जमशेदपुर
NATIONAL INSTITUTE OF TECHNOLOGY JAMSHEDPUR
(An Institution of National importance under MHRD, Government of India)
Department of Electronics & Communication Engineering

Dr. Basudeba Behera
Assistant Professor & Former Associate Dean (F&W)

Email: basudeb.ece@nitjsr.ac.in
Mobile: +91-8812016250

Date: 06/06/2021

To whom it may concern

This is to certify that Ms. Shreya Singh (BTBTN17104) studying B.Tech in Electronics and Instrumentation Engineering at School of Automation under Banasthali Vidyapith, Rajasthan has completed her Project work with the title "Active Motion Control of a Knee Exoskeleton" under my supervision in the academic year of 2020-2021. During her project work, it is found that her overall performance in executing the project was satisfactory. I wish her all the success in her future endeavors.

Dr. Basubeba Behera
Dr. Basudeba Behera
Assistant Professor, DECE

Assistant Professor & Former Associate Dean (F&W)
Department of Electronics & Communication Engineering,
National Institute of Technology Jamshedpur, JH., India



TechieNest Pvt. Ltd.

Transforming Engineers to Technocrats

Towhomsoever it may concern

This is to certify that **Ms. Shruti Chauhan**, B. Tech 4th year, Electronics & Instrumentation Engineering, student of **Banasthali University, Rajasthan**, has successfully completed 4 months Industrial Project based Internship in **Machine Learning** at **TechieNest Pvt Ltd**, from **22nd Feb, 2021 to 25th June 2021**.

During the internship she demonstrated good technical skills with a self-motivated attitude to learn new in Technical era. She successfully completed her projects on time.

Projects Title - Personalized Gesture Control Computer Interface.

Points of Evaluation	Max. Marks	Marks Obtained
Project Work	15	14
Assignment Completion	10	10
Attendance	10	9
Communication & presentation Skills	15	15

Internship Coordinator – Mr. Saurabh Bhardwaj

We wish her all the best for her career.



Authorized Signature

Office:- 7 Jawahar Nagar Colony, Gate No. 1, Near Glass Factory, Tonk Road, Jaipur, Rajasthan, INDIA- 302015



सीएसआईआर केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान
CSIR-CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE
(विज्ञान तथा प्रौद्योगिकी मंत्रालय / MINISTRY OF SCIENCE & TECHNOLOGY, भारत सरकार / GOVT. OF INDIA)
पिलानी, राजस् थन (भारत) / Pilani, Rajasthan - 333031 (INDIA)



Dr. Suchandan Pal
Head, Project Monitoring & Evaluation
Chairman, International Science & Technology Affairs Group

No. PME\S\Trg\BU\2021
Date: 23/06/2021

To,

The Director
Banasthali Vidyapith,
P.O. Banasthali Vidyapith
Rajasthan – 304022

CERTIFICATE OF TRAINING

This is to certify that **Ms. Tanishqa Rathore, BTBTN17023, B.Tech. (Electronics and Instrumentation Engineering)** of your Institute has completed her project work online at this Institute during **15th January, 2021 to 15th June, 2021**. Her project was on **"A Study on Piezoelectric Accelerometer "**.

Her conduct during the training was satisfactory.

Head, PME

प्रमुख पी.एम.ई. / Head PME
सीएसआईआर-केन्द्रीय इलेक्ट्रॉनिकी अभियांत्रिकी अनुसंधान संस्थान
CSIR-Central Electronics Engineering Research Institute
पिलानी, राजस्थान / Pilani, Rajasthan-333031

भौतिक अनुसंधान प्रयोगशाला
(भारत सरकार, अंतरिक्ष विभाग की यूनिट)
नवरंगपुरा, अहमदाबाद - 380 009, भारत.



Physical Research Laboratory
(A Unit of Dept. of Space, Govt. of India)
Navrangpura, Ahmedabad - 380 009, India

PROVISIONAL CERTIFICATE

This is to certify that

Ms. Tanu Garg

(BTBTN17018)

of

Banasthali Vidyapith, Rajasthan

has successfully completed her project work on

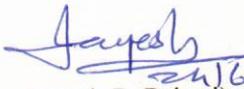
“Modelling and Analysis of Schumann Resonance due to Lightning”

in the PSDN division of

Physical Research Laboratory, Ahmedabad

during 9 February -24 June 2021 under the supervision of Dr. Jayesh P. Pabari.

Date **24-6-2021**


24/6/2021

(Dr. Jayesh P. Pabari)

Researcher, PSDN

PRL, Ahmedabad





CSIR- CSIO

**CSIR- Central Scientific Instruments Organisation
Sector 30-C, Chandigarh. India**

Certificate of Training

This is to certify that Tanya Sharma, daughter of Mr Dharmpal Sharma and a student of School of Automation, Banasthali Vidyapeeth, has trained with the Optical Devices and Systems Division of CSIR-CSIO from January 4, 2021 to May 31, 2021 with Enrolment Number A2835.

Grade Awarded: Outstanding

V. Singh

*Coordinator, Trainee and Apprenticeship Cell
June 24, 2021*

प्रशिक्षण समन्वयक
Training Coordinator
केन्द्रीय वैज्ञानिक उपकरण संगठन
Central Scientific Instruments Organisation
सेक्टर 30 - सी, / Sector 30-C, चण्डीगढ़ / Chandigarh

23/03/2021

TRAINING CERTIFICATE

This is to certify that **Ms. Arunali Srivastava**, B. Tech in Electronics and Instrumentation from **Banasthali Vidhyapith, Rajasthan**, has successfully completed her training at **FARE Labs Private Limited** from 2nd January 2021 to 23rd March 2021 and has been awarded excellent grade on the basis of her performance.

She has accomplished the training successfully. We have found her sincere and devoted during the training.


Rekha Xavier
Human Resource Department


Dr. Meenakshi Tripathi
President



संपर्क कार्यालय,
टीसी-43/वी, विभूति खण्ड,
(राम मनोहर लोहिया हॉस्पिटल के समीप)
गोमती नगर, लखनऊ
दूरभाष नं. 0522-2720952

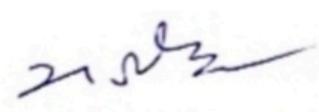
एनएचपीसी लिमिटेड
(एनएचपीसी लिमिटेड)
NHPC Limited
(A Govt. of India Enterprise)
ISO-9001, 14001 & IS 15001 Certified Company

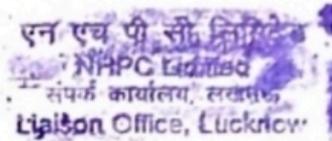
Liaison Office
TC-43/V, Vidhan-Khanda,
Gandhi Park, Manohar Lohia Hospital,
Gomti Nagar, Lucknow
Phone: 0522-2720952

CERTIFICATE

This is to certify that **Arunali Srivastava D/O Mr. Sudhanshu Shekhar Srivastava B. Tech (Electronics And Instrumentation) Banasthali Vidyapeeth**, has undergone Summer Training programme at Liaison Office, NHPC Limited, Lucknow. She has carried out the Project work entitled "**Hydroelectric Power Plants**" for the Partial Fulfilment of B.Tech degree in (Electronics And Instrumentation) from **Banasthali Vidyapeeth**, under my supervision. The report embodies result of original work and studies carried out by the Student herself and the contents of the Project do not form the basis for the award of any other degree to the candidate or to anybody else.

Date:-03-JUN-2021


Dr. RAJIV RANJAN SRIVASTAVA
(Project Coordinator)
& Communication Wing
NHPC Limited



पंजीकृत कार्यालय: एनएचपीसी ऑफिस कॉम्प्लेक्स, सेक्टर-33, फरीदाबाद (हरियाणा)
Regd. Office: NHPC Office Complex, Sector-33, Faridabad (HARYANA)
Visit us at www.nhpcindia.com

Cert. No :- CRISP/21/186/ONL06/00700

Reg. ID :- 2021/JSEEIAOL/02/6

CRISP

ISO 9001 : 2015

**CENTRE FOR RESEARCH AND
INDUSTRIAL STAFF PERFORMANCE**

Certificate

This Certificate is awarded to

Ms. Unnati Vishnoi, D/o Mr. Anoop Kumar Vishnoi

in recognition of his/her participation in Online

“Internship on Industrial Automation”

Conducted on/during 06-01-2021 to 25-06-2021

PIYUSH JAIN

Course Co-ordinator

Chief Executive Officer

Issue Date :-25-06-2021

(Established Under Indo-German Technical Co-operation)

Opp. Manas Bhawan, Shyamla Hills, Bhopal – 462002, Madhya Pradesh, India

Ph.: 0755-2661401, 4223702, FAX: 0755-4220022,

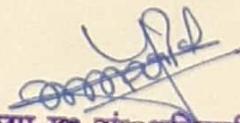
Website: www.crispindia.com , e-mail: crisonline@crispindia.com



NORTH CENTRAL RAILWAY

Certificate

This is to certify that Shri/Km VAISHALI SINGH
Student of BANASTHALI VIDYAPITH
(...B.TECH. Electronics & Instrumentation Eng....) has undertaken practical
Training for six months (...Signal And Telecommunication NCR, Alld...)
Under: Safety Department (S & T), Allahabad
Overall performance of the student in training process was satisfactory


Dy. C S O / S & T
Dy. Chief Safety Officer
North Central Railway, Allahabad
N. C. Railway, Prayagraj

HONDA

Honda Motorcycle and Scooter India Pvt. Ltd.
Plot No. SPL-2(D), 2(E), 2(F) & 2(G)
Tapukara Industrial Area, Distt. Alwar
(Rajasthan) - 301 707

Date: 21 June 2021

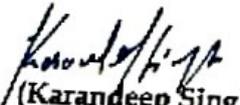
Ref: GA2F/HR/PPT/98KJ/02

To whomsoever it may Concern

This is to certify that Ms Vaishali Tyagi has successfully completed her industrial training from 30 January 2021 to 14 June 2021. During her project training she has worked on the project of "To improve overall efficiency of in house calibration system" & shared her inputs for the same with her project Guide.

During this tenure we found her sincere & committed to her project. We wish her all the best for all her future endeavor.

For Honda Motorcycle & Scooters India Private Limited


(Karandeep Singh)

Deputy Manager - HR 2F



UM AUTOCOMP PRIVATE LIMITED

WORKS : 10TH K.M. DELHI ROAD, SAHARANPUR-247 451 (UTTAR PRADESH)

Phone : 9690011307 | E-MAIL : umautosre@umauto.in, WEBSITE : www.umgroup.in

REGD. OFFICE : 806, DEVIKA TOWER, 6 NEHRU PLACE, NEW DELHI-110019, INDIA, PH. : +91-11-65683592, 46540604

Ref.UMAPL/HR/2021

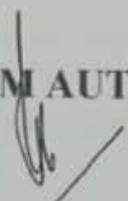
Dated: 17.06.2021

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Ms. Vanshika Pundir D/o. Sh. Rajveer Singh**, a student of **B.Tech in Electronics & Instrumentation, 8th Semester** from **Banasthali Vidyapith, P.O. Banasthali Vidyapith -304022 (Rajasthan)** has gone under Vocational training course from 11.01.2021 to 10.06.2021 in our organization.

We wish him for her bright future.

For **UM AUTOCOMP PVT. LTD.**


(S.M. PILLAI)
HEAD - HR & ADMIN

Date: 10.06..2021

IYSERT/IN/HR/010/2021

TO WHOMSOEVER IT MAY CONCERN

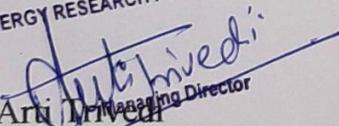
This is to certify that **Ms. Vidisha Kumari**, studying **B.Tech, (Electronics & Instrumentation Engineering)** at **Banasthali Vidyapith, Newai, Rajasthan** has done her internship in the below stated projects at IYSERT Energy Research Private Limited from 25 Jan 2021 to 10 JUNE 2021

- **Design and Development of Solar Tree**

During the internship she demonstrated good innovative skills with a self-motivated attitude to learn new things. Her performance exceeded expectations and she was able to complete the project work within the stipulated time period.

We wish her all the best for all her future endeavours.

IYSERT ENERGY RESEARCH PVT. LTD.


 Mrs Arunima
 Managing Director,
 IYSERT Energy Research Private Limited.



भारत सरकार
अन्तरिक्ष विभाग
राष्ट्रीय सुदूर संवेदन केन्द्र
बालानगर, हैदराबाद -500 037, तेलंगाना, भारत
टेलिफोन : +040-23879572-76
+040-23879261-65
फैक्स :+040-23878648



Government of India
Department of Space
National Remote Sensing Centre
Balanagar, Hyderabad - 500 037, Telangana, India
Telephone : +040-23879572-76
+040-23879261-65
Fax : +040-23878648

CERTIFICATE

This is to certify that the project report titled "STUDY AND ANALYSIS OF VITERBI DECODING LOGIC TO IMPLEMENT ON FPGA" being submitted by MS.YOGITA , student in B.Tech (Electronics & Instrumentation Engineering) from School of Automation, Banasthali Vidyapith is a record of bonafide work done by her during the period from 7th Jan,2021 to 31st May, 2021, under our guidance.

Padmavathy C.S,
Sci./Engr. 'G
GH,RF&BSG