

1.3.4

**Supporting Documents- Electrical
Engineering**

**List of Students Undertaking Field Projects /
Research Projects / Internship Program and
Completion Certificates**




1.3.4 Percentage of students undertaking field projects / research projects / internships (Data for the latest completed academic year)(5)

1.3.4.1: Number of students undertaking field project or research projects or internships

S. no.	Programme name	Program Code	List of students undertaking field projects /research projects / internships	Link to the relevant document
1	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731869 Archit Sharma	
2	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731871 Gaurav Saroya	
3	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731873 Gourav Bhardwaj	
4	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731874 Khamesh Sharma	
5	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731875 Kumari Anshu	
6	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731876 Mohammad Rafi	
7	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731877 Munish Kumar	
8	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731878 Neelmani	
9	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731879 Pankaj Kumar	
10	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731880 Shishant Sharma	
11	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731881 Shivam Chauhan	
12	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731883 Sourav Verma	
13	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731885 Vishal Kumar	
14	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731886 Vivek Bhagat	
15	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1818666 Abhishek Verma	
16	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1818667 Amit Kumar	
17	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1818668 Anshul Kanwar	
18	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1818669 Baljinder Singh	
19	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1818670 Gagan Sharma	
20	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1818671 Paras Sharma	

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10/2

21	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1818672	Prince Saklani	
22	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731841	Kavita Pathak	
23	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731636	Prince	
24	B. Tech. in Electrical Engineering Batch 2017 BTEE-702 Software Training & BTEE702- Industry oriented Project Training, One Semester Training	16	1731637	Romandeep Singh	
25	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916537	Abhishek Kumar Gupta	
26	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916538	Abhishek Yadav	
27	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916539	Abhishek Yadav	
28	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916540	Adarsh Raj	
29	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916542	Ahsaas Kumar	
30	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916543	Aishwary Raj	
31	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916544	Ansh Kumar	
32	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916545	Anurag Chaudhary	
33	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916546	Ashish Choudhary	
34	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916547	Ashutosh Kumar Pandit	
35	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916548	Avinash Kumar	
36	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916549	Ayush Gupta	
37	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916551	Diwakar Kumar	
38	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916552	Gurbax Singh	
39	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916553	Gurdeep Magu	
40	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916554	Harsh Kumar Singh	
41	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916555	Indrasen Yadav	
42	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916556	Mehul Raj	
43	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916557	Nishan Singh	
44	B. Tech. in Electrical Engineering Batch 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	16	1916559	Parth Saini	

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Kapurthala 14006

45	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1916560	Rahul Kumar	
46	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1916561	Rajneesh Kumari	
47	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1916562	Rajnish Kumar	
48	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1916563	Ranvir Singh	
49	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1916564	Raushan Kumar	
50	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1916565	Ravi Raj	
51	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1916566	Ritik Sighania	
52	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1916568	Sachin kumar	
53	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1916569	Sanjay kumar	
54	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1916570	Sanny Kumar	
55	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1916571	Shubham Jamwal	
56	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1916572	Vaibhav Kumar	
57	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1916573	Vikash Pal	
58	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1901884	Abhay Kumar	
59	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1901885	Akash Kumar	
60	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1901886	Akash Singh	
61	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1901887	Rabjot Singh	
62	B. Tech. in Electrical Engineering 2019 (Undertaken after 3rd semester-online mode) BTEE-321-18, Institutional Summer Vacation Training	Batch	16	1901888	Sachin Kumar	

[Signature]
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63	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1801765	Abhishek Procha	
64	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1801767	Rahul Kuamr	
65	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1801768	Ranjeet Singh	
66	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1801769	Satyam Kumar Choudhary	
67	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818650	Abhinav Pathania	
68	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818651	Ankur Chauhan	
69	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818652	Anmol Kalia	
70	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818653	Bhanu	
71	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818654	Gagandeep	
72	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818655	Harkaran	
73	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818656	Harshdeep Rai	
74	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818657	Kartikay	
75	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818658	Manga	
76	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818659	Parveen Kumar	
77	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818660	Pritish Tuteja	
78	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818661	Priya Kumari	
79	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818662	Ramandeep Singh	
80	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818663	Ruhi Kumari	
81	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818664	Suraj Paliyal	
82	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1818665	Yamini Gupta	
83	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1916677	Harmanpreet Singh	
84	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1916678	Iqbal Singh	
85	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1916679	Lovepreet Singh	
86	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1916680	Navkirat Singh	
87	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1916681	Pankaj Kumar Gautam	
88	B. Tech. in Electrical Engineering Batch 2018 (BTEE-621-18) Project -1	16	1916682	Suraj Parkash	
89	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731869	Archit Sharma	
90	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731871	Gaurav Saroya	
91	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731873	Gourav Bhardwaj	
92	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731874	Khamesh Sharma	
93	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731875	Kumari Anshu	
94	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731876	Mohammad Rafi	
95	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731877	Munish Kumar	
96	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731878	Neelmani	

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97	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731879	Pankaj Kumar	
98	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731880	Shishant Sharma	
99	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731881	Shivam Chauhan	
100	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731883	Sourav Verma	
101	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731885	Vishal Kumar	
102	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731886	Vivek Bhagat	
103	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1818666	Abhishek Verma	
104	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1818667	Amit Kumar	
105	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1818668	Anshul Kanwar	
106	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1818669	Baljinder Singh	
107	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1818670	Gagan Sharma	
108	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1818671	Paras Sharma	
109	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1818672	Prince Sakiani	
110	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731841	Kavita Pathak	
111	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731636	Prince	
112	B. Tech. in Electrical Engineering Batch 2017 (BTEE-807-18) Project Work	16	1731637	Romandeep Singh	


1.3.4

Formula

(Number of students undertaking@ field projects or research projects or internships)

Number of students undertaking field projects or internships=112
Total Number of Students= 138

Percentage= 81.16%

Head 
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Kapurthala-144006



06/22/2020

Abhishek kumar Gupta

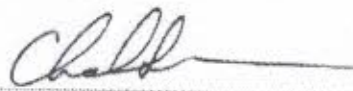
has successfully completed


Programming for Everybody (Getting Started with Python)

an online non-credit course authorized by University of Michigan and offered through Coursera

COURSE
CERTIFICATE




Charles Severance
Clinical Professor, School of Information
University of Michigan


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

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VANDERBILT UNIVERSITY

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Jul 9, 2020

ABHISHEK YADAV

has successfully completed

Introduction to Programming with MATLAB

an online non-credit course authorized by Vanderbilt University and offered through
Coursera



Ali Goh

Ali Goh, Ph.D.
Professor
Computer Engineering, Computer Science, and
Electrical Engineering

Georges Michael Fitzpatrick

Georges Michael Fitzpatrick, Ph.D.
Professor Emeritus
Computer Science, Computer Engineering, Electrical Engineering, Neurosurgery, and Radiology
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical Uni
Kapurthala-144006

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M UNIVERSITY OF MICHIGAN

Jul 11, 2020

ABHISHEK YADAV

has successfully completed

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CERTIFICATE**



Charles Severance
Clinical Professor, School of Information
University of Michigan

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3



06/14/2020

ADARSH RAJ

has successfully completed

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an online non-credit course authorized by University of Michigan and offered through Coursera

Charles Severance
Clinical Professor, School of Information
University of Michigan

Head
Department of Electrical Engineering
IIT, Guwahati Punjab Technical University
Surbhala-141006

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Coursera has confirmed the identity of this individual and
their participation in the course.



06/05/2020

Aishwary Raj

has successfully completed

Programming for Everybody (Getting Started with Python)

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Charles Severance
Clinical Professor, School of Information
University of Michigan

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

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CERTIFICATE OF BRILLIANCE

Eduonix Learning Solutions recognizes the
hard-work and dedication of

Ahsaas Kumar

for successfully completing the

"Learn AutoCAD Electrical"

on August 19, 2021. Eduonix congratulates

you for your accomplishment.

Sushant Das

SIGNATURE

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

www.eduonix.com/certificate/afc2d13eb9



M UNIVERSITY OF MICHIGAN

Jun 15, 2020

Ansh kumar

has successfully completed

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Charles Severance
Clinical Professor, School of Information
University of Michigan

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

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CERTIFICATE OF COMPLETION



EDUCBA

THIS IS TO CERTIFY THAT

Anurag Chaudhary

has successfully completed the
Electrical Machines I course.

Ragandeep

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Jalandhar-140601

URL: <http://www.educba.com/certificate/?c=FSB&CPoVD>

[Signature]

Course Director

[Signature]

Head of Training

[Signature]

Course Mentor

www.educba.com



07/14/2020

Ashish Choudhary

has successfully completed

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A handwritten signature in blue ink, appearing to read 'Chad', followed by a horizontal line.

Charles Severance
Clinical Professor, School of Information
University of Michigan

A handwritten signature in blue ink, appearing to read 'I.K. Gujral', followed by a horizontal line.

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

COURSE
CERTIFICATE



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their participation in the course.

COURSE CERTIFICATE

This is to certify that

ASHUTOSH KUMAR PANDIT

has successfully completed the course by demonstrating
theoretical and practical understanding of

C++

Signature

Signature

Yeva Hyusyan

Head of Department of Electrical Engineering
SOLOLEARN
Punjab Technical University

Certificate 25016794-1021
Issued 03 February, 2021

14/006

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10

M UNIVERSITY OF MICHIGAN

Aug 22, 2020

Avinash Kumar

has successfully completed

Programming for Everybody (Getting Started with Python)

an online non-credit course authorized by University of Michigan and offered through Coursera

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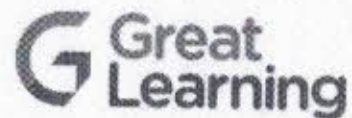


Charles Severance
Clinical Professor, School of Information
University of Michigan

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Verify at coursera.org/verify/LPCVSBXV3JHM

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CERTIFICATE OF COMPLETION

Presented to

Ayush Gupta

For successfully completing a free online course
Python for Machine Learning

Provided by

Great Learning Academy

(On July 2021)

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

CERTIFICATE

greatlearning
Power Ahead

CERTIFICATE OF COMPLETION

Presented to

DIWAKAR KUMAR

For successfully completing a free online course
C for Beginners

Provided by
Great Learning Academy
(On February 2021)


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



Jun 28, 2020

Gurbax Singh

has successfully completed

C for Everyone: Programming Fundamentals

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offered through Coursera

Ira Pohl

Professor Ira Pohl, PhD
Baskin School of Engineering
University of California, Santa Cruz

Gezenderp

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

**COURSE
CERTIFICATE**



Verify at coursera.org/verify/DLD6WEK8V8MS

Coursera has confirmed the identity of this individual and their
participation in the course.



CERTIFICATE Of COMPLETION

.....

This is to certify that Mr. / Ms. Gurdeep Magu successfully completed the online course with on certificate for Getting Started with Python.

Karan Arora

Karan Arora

A blue ink signature of Karan Arora.



Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

30 March 2021

Date

Certificate ID: #00016875

Certificate URL: <http://www.itronixsolutions.com/courses/certificate/3d529c9a8>

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May 30, 2020

Harsh Kumar Singh

has successfully completed

Programming for Everybody (Getting Started with Python)

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Charles Severance
Clinical Professor, School of Information
University of Michigan



Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

COURSE
CERTIFICATE



Verify at coursera.org/verify/45V68KA9WASS

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CERTIFICATE OF COMPLETION

Presented to


Indrasen Yadav

For successfully completing a free online course
C for Beginners

Provided by

Great Learning Academy

(On February 2021)


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



07/01/2020

Mehul Raj

has successfully completed

Programming for Everybody (Getting Started with Python)

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A handwritten signature in blue ink, appearing to read 'Charles', followed by a horizontal line.

Charles Severance
Clinical Professor, School of Information
University of Michigan

A small, stylized blue mark or signature, possibly a checkmark or a small 'D'.

A handwritten signature in blue ink, appearing to read 'Legend', followed by a horizontal line.

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

**COURSE
CERTIFICATE**



Verify at coursera.org/verify/EMDGSNEVNHZJ

Coursera has confirmed the identity of this individual and
their participation in the course.



CERTIFICATE Of COMPLETION

.....

This is to certify that Mr. / Ms. Nishan Singh successfully completed the online course with on certificate for Getting Started with Python.

Karan Arora

Karan Arora



Resenderup
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

30 March 2021

Date

Certificate ID: #00016901

Certificate URL: <https://www.itronixsolutions.com/courses/certificate/c28d27938f>

Duke
UNIVERSITY

Jul 23, 2020

Parth Saini

has successfully completed

Programming Fundamentals

an online non-credit course authorized by Duke University and offered through Coursera

Andrew D. Hilton

Andrew D. Hilton | Genevieve M. Lipp | Anne Bracy
Assistant Professor of the Practice | Adjunct Professor | Senior Lecturer
Electrical and Computer Engineering | Electrical and Computer Engineering | Computer Science, Cornell University

**COURSE
CERTIFICATE**



Geetanjali

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Verify at coursera.org/verify/U4P4SFAXK8A4

Coursera has confirmed the identity of this individual and their participation in the course



COURSE
CERTIFICATE

Jun 15, 2020

Rahul kumar

has successfully completed

Programming for Everybody (Getting Started with Python)

an online non-credit course authorized by University of Michigan and offered through Coursera



Charles Severance
Clinical Professor, School of Information
University of Michigan

Head
Department of Electrical Engineering
Gujral Punjab Technical University
Jalandhara-144006

Verify at coursera.org/verify/MX8YNXEGCNX4

Coursera has confirmed the identity of this individual and their participation in the course.

M UNIVERSITY OF MICHIGAN

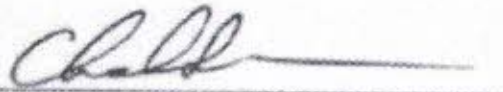
Jun 15, 2020

Rajneesh kumari

has successfully completed

**Programming for Everybody (Getting Started with
Python)**

an online non-credit course authorized by University of Michigan and offered through
Coursera



Charles Severance
Clinical Professor, School of Information
University of Michigan



Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

COURSE
CERTIFICATE



Verify at coursera.org/verify/MXBXNKEGCNX4

Coursera has confirmed the identity of this individual and their
participation in the course.



06/02/2020

Rajnish Kumar

has successfully completed

Programming for Everybody (Getting Started with Python)

an online non-credit course authorized by University of Michigan and offered through Coursera

A handwritten signature in blue ink, appearing to read 'Charles', followed by a horizontal line.

Charles Severance
Clinical Professor, School of Information
University of Michigan

A handwritten signature in blue ink, appearing to read 'Sagande P'.

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

COURSE
CERTIFICATE



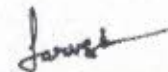
Verify at coursera.org/verify/CMTZWN38KB25

Coursera has confirmed the identity of this individual and
their participation in the course.

Certificate of Training

Ranvir Singh

from **IKG Punjab Technical university (Main Campus), Kapurthala jalandhar Highway** has successfully completed a six weeks online training on **AutoCAD** from 11th June, 2020 to 23rd July, 2020. The training consisted of Interface, Drawing Aids & Basic Objects, Complex Objects & Object editing, Blocks & Annotations and Plotting & Introduction to 3D modules. Ranvir scored 95% marks in the final assessment and is a top performer in the training. We wish Ranvir all the best for the future.



Sarvesh Agrawal
Founder & CEO, Internshala



Head
Department of **Electrical Engineering**
I.K. Gujral Punjab Technical Univer
Kapurthala-144006

Date of certification: 2020-07-09

Certificate no.: 707B9A91C-50BD-228F-87F2-3F1543D10718

For certificate authentication, please visit https://trainings.internshala.com/verify_certificate

23



06/07/2020

Raushan Kumar

has successfully completed

Programming for Everybody (Getting Started with Python)

an online non-credit course authorized by University of Michigan and offered through Coursera

A handwritten signature in blue ink, appearing to read 'Charles'.

Charles Severance
Clinical Professor, School of Information
University of Michigan

A handwritten signature in blue ink, appearing to read 'Gagandeep'.

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

**COURSE
CERTIFICATE**



Verify at coursera.org/verify/V7YTLFKKLT56

Coursera has confirmed the identity of this individual and
their participation in the course.



06/26/2020

Ravi Raj

has successfully completed

Electric Power Systems

an online non-credit course authorized by University at Buffalo and The State University of New York and offered through Coursera

**COURSE
CERTIFICATE**



A handwritten signature in blue ink, appearing to read 'Ilya Grinberg'.

Ilya Grinberg, Professor
Engineering Technology
Buffalo State College

A handwritten signature in blue ink, appearing to read 'Gogandeep'.

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Verify at coursera.org/verify/5DT5ZBQEF9JH

Coursera has confirmed the identity of this individual and
their participation in the course.



The State University
of New York

07/31/2020

Ritik Singhanian

has successfully completed

Electric Power Systems

an online non-credit course authorized by University at Buffalo and The State
University of New York and offered through Coursera

**COURSE
CERTIFICATE**



Ilya Grinberg, Professor
Engineering Technology
Buffalo State College

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Verify at coursera.org/verify/CSMSV9EGHDY4

Coursera has confirmed the identity of this individual and
their participation in the course.



CERTIFICATE OF COMPLETION

This is to certify that

Sachin Kumar

has completed " Introduction to Python Programming "
course successfully from Startup Center Academy on

28/11/2020

Ruby Donald

Ruby Donald

Placement-In-Charge

A. G. Gendep

Head

Department of Electrical Engineering

I.K. Gujral Punjab Technical University

Kapurthala-144006

Indu Dugal

Indu Dugal

Course-In-Charge

M UNIVERSITY OF MICHIGAN

Jun 15, 2020

Sanjay Kumar

has successfully completed

Programming for Everybody (Getting Started with Python)

an online non-credit course authorized by University of Michigan and offered through Coursera

COURSE
CERTIFICATE




Charles Severance
Clinical Professor, School of Information
University of Michigan


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Verify at coursera.org/verify/MX8XNXEGCNX4

Coursera has confirmed the identity of this individual and their participation in the course.

M UNIVERSITY OF MICHIGAN

Jul 1, 2020


Sanny Kumar

has successfully completed

Programming for Everybody (Getting Started with Python)

an online non-credit course authorized by University of Michigan and offered through Coursera



30


Charles Severance
Clinical Professor, School of Information
University of Michigan



Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Verify at coursera.org/verify/D48J3EJFXEEP

Coursera has confirmed the identity of this individual and their participation in the course.



07/31/2020

Shubham Jamwal

has successfully completed

Programming for Everybody (Getting Started with Python)

an online non-credit course authorized by University of Michigan and offered through Coursera

Charles Severance

Charles Severance
Clinical Professor, School of Information
University of Michigan

Ragandeep

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

**COURSE
CERTIFICATE**



Verify at coursera.org/verify/QCJT9TG3KZTB

Coursera has confirmed the identity of this individual and
their participation in the course.



The State University
of New York

08/10/2020

Vaibhav Kumar

has successfully completed

Electric Power Systems

an online non-credit course authorized by University at Buffalo and The State
University of New York and offered through Coursera

Ben Grinberg, Professor
Engineering Technology
SUNY State College

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

**COURSE
CERTIFICATE**



Verify at coursera.org/verify/82GVJYVUT3R3

Coursera has confirmed the identity of this individual and
their participation in the course.



pisoftERP

Dated: 1 Jan 2021

CERTIFICATE

This is to certify that **Mr. Vikas Pal, S/O Mr. Vijay Kumar pal, IKGPTU Kapurthala** has successfully completed software training in **Python** with us

The duration of her training was from **15th Oct 2020 to 1 Jan 2021.**

During the training we found her quite sincere, hardworking and her conduct & behavior was good.

We wish her all success for her endeavors in life.

For Pisoft Informatics Pvt. Ltd.



Authorized Signatory

Gagandeep

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

PISOFT INFORMATICS PRIVATE LIMITED

F-408, Phase-B II, Industrial Area, MOHALI

Mobile: +91-82880-29930

www.pisoftinformatics.com | info@psisoftinformatics.com



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CERTIFICATE Of COMPLETION

.....

This is to certify that Mr. / Ms. Abhay Kumar successfully completed the online course with on certificate for Getting Started with Python.

Karan Arora
Karan Arora



Aggandeep
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical Univer
Kapurthala-144006

30 March 2021
Date

Certificate ID: #00016885

Certificate URL: <https://itronixsolutions.com/courses/certificate/ee7fb2c462>



CERTIFICATE OF COMPLETION

This is to certify that Mr. / Ms. Akash kumar successfully completed the online course with on certificate for Getting Started with Python.

Karan Arora
Karan Arora



06 January 2021
Date

Certificate ID: #00008035

Certificate URL: <https://www.pythonixsolutions.com/courses/certificate/a2d6d91616>

Geetika

Department of Electrical Engineering
J.K. Gujral Punjab Technical University
Jalandhar-144006

2

38



CERTIFICATE Of COMPLETION

.....

This is to certify that Mr. / Ms. Akash Singh successfully completed the online course with on certificate for Getting Started with Python.

Gargandeep

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Karan Arora

KA
Karan Arora



06 January 2021

Date

Q
Certificate ID: #00008034

Certificate URL: <https://www.itronixsolutions.com/courses/certificate/cl691f57ca>

M UNIVERSITY OF MICHIGAN

Jun 15, 2020

RABJOT SINGH

has successfully completed

Programming for Everybody (Getting Started with Python)

an online non-credit course authorized by University of Michigan and offered through Coursera

32

Charles Lawrence
Professor, School of Information
University of Michigan


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

COURSE
CERTIFICATE



Verify at coursera.org/verify/MX8XNXEGCNK4

Coursera has confirmed the identity of this individual and their participation in the course.

HOME ENERGY MANAGEMENT

(SIMULATION)

Submitted in partial fulfilment of the requirement for the award of degree

Of

Bachelor Of Technology

In

Electrical Engineering

Submitted by:

ARCHIT SHARMA

(1731869)

ABHISHEK VERMA

(1818666)

PARASSHARMA

(1818671)

Guided (On-Line) By-

DR. NAVEEN SHARMA

(ASSISTANT PROFESSOR)



DEPARTMENT OF ELECTRICAL ENGINEERING

L.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY

Sagandeep

P

Head
Department of Electrical Engineering
L.K. Gujral Punjab Technical University
Kapurthala-144006

604

CANDIDATES DECLARATION

This is to certify that project entitled "Home Energy Management and Motoring Simulation" being submitted by **Archit Sharma (1731869)**, **Paras Sharma (1818671)**, **Abhishekverma(1818666)**, in the fulfilment of requirements for the award of degree of Bachelor Of Technology, Electrical Engineering submitted in the department of Electrical Engineering under I.K. Gujral Punjab Technical University, Kapurthala, is a record of project work carried out during period Aug 2020 to Dec 2020, under online Guidance of **Dr. Naveen Sharma**.

Project Members:

ARCHIT SHARMA	ABHISHEK VERMA	PARAS SHARMA
(1731869)	(1818666)	(1818671)

CERTIFICATE

This to certify that minor project report on

"HOME ENERGY MANAGEMENT (SIMULATION BASED)" which is to be submitted by **OUR GROUP** in partial fulfilment of the requirement for the degree of B. Tech in department of **ELECTRICAL ENGINEERING** of IKG Punjab Technical University, Kapurthala. The matter embodied in this REPORT is original and has not been submitted for award of any degree.

Project Guide: Dr. NAVEEN SHARMA

Submitted by:

ARCHIT SHARMA (1731869)

PARAS SHARMA (1818671)

ABHISHEK VERMA (1818666)

Head
Department of Electrical Engineering
Gujral Punjab Technical University
Kapurthala-144006

MICRO GRID SIMULATION

Submitted in partial fulfilment of the requirement for the award of degree
of

BACHELOR OF TECHNOLOGY

In

ELECTRICAL ENGINEERING

Submitted by :

KHAMESH SHARMA

(1731874)

KUMARIANSHU

(1731875)

ANSHULKANWAR

(1818668)

PRINCE SAKLANI

(1818672)

Guided (Online) By-

DR. NAVEEN SHARMA

(ASSISTANT PROFESSOR)



DEPARTMENT OF ELECTRICAL ENGINEERING

LK. GUJRAL PUNJAB TECHNICAL UNIVERSITY

MAIN CAMPUS, KAPURTHALA

Head

Department of Electrical Engineering
LK Gujral Punjab Technical University
Kapurthala-144006

106

CANDIDATES DECLARATION

This is to certify that project entitled "Micro Grid Simulation" being submitted by **Khamesh Sharma (1731874)**, **Kumari Anshu (1731875)**, **Prince Saklani (1818672)**, **Anshul Kanwar (1818668)**, in the fulfilment of requirements for the award of degree of Bachelor Of Technology, Electrical Engineering submitted in the department of Electrical Engineering under I.K.Gujral Punjab Technical University, Kapurthala, is a record of project work carried out during period Aug 2020 to Dec 2020, under online Guidance of Dr. Naveen Sharma.

Project Members:

KHAMESH SHARMA ANSHUL KANWAR KUMARI ANSHU PRINCE SAKLANI
(1731874)(1818668)(1731875)(1818672)

CERTIFICATE

This to certify that minor project report on

"MICROGRID SIMULATION (SIMULATION BASED)" which is to be submitted by our group in partial fulfilment of the requirement for the degree of B. Tech in department of **ELECTRICAL ENGINEERING** of IKG Punjab Technical University, Kapurthala. The matter embodied in this REPORT is original and has not been submitted for award of any degree.

Project Guide: Dr. NAVEEN SHARMA

Submitted by:

KHAMESH SHARMA (1731874)

ANSHUL KANWAR (1818668)

KUMARI ANSHU (1731875)

PRINCE SAKLANI (1818672)


Head
Department of Electrical Engineering
Gujral Punjab Technical University
Kapurthala-141006

RENEWABLE ENERGY AND WASTE MANAGEMENT TYPE SMART CITY

Submitted in partial fulfilment for the award of the degree
of
BACHELOR OF TECHNOLOGY
in
ELECTRICAL ENGINEERING

SUBMITTED BY:-

GAGAN SHARMA (1818670)

KAVITA PATHAK(1731841)

NEELMANI(1731878)

SOURAV VERMA(1731883)

Guided By: - Dr Deepika Bhalla
(ASSISTANT PROFESSOR)



DEPARTMENT OF ELECTRICAL ENGINEERING
L.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY
MAIN CAMPUS KAPURTHALA

Head

Gagandeep
Department of Electrical Engineering
L.K. Gujral Punjab Technical University
Kapurthala - 147106

68

CANDIDATE'S DECLARATION

This is to certify that the project entitled, "RENEWABLE ENERGY AND WASTE MANAGEMENT TYPE SMART CITY" being submitted by Gagan Sharma (1818670), Kavita Pathak(1731841), Neelmani(1731878), Sourav Verma(1731883) in the partial fulfilment of requirements for the award of the degree of Bachelor of Technology, Electrical Engineering submitted in the Department of Electrical Engineering under I.K. Gujral Punjab Technical University Main Campus Kapurthala, is a record of bonafide project work carried out during the period from August 2020 to December 2020 under the guided of Dr Deepika Bhalla

Gagan Sharma
(1818670)

Kavita Pathak
(1731841)

Neelmani
(1731878)

Sourav Verma
(1731883)

This is to certify that the above project work by the student of batch(2017 - 2021) is correct to the best of my knowledge.

Dr Deepika Bhalla(Guide)
(Assistant Professor)
Department Of Electrical Engineering
I.K. Gujral Punjab Technical University
Main Campus Kapurthala

Signature of H.O.D
(Electrical Department)

Deepika Bhalla
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

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DECLARATION BY THE CANDIDATE

We the undersigned solemnly declare that the project report **THERMAL LOSSES REDUCTION IN EV** is based on our own work carried out during the course of our study under the supervision of **Dr. Deepika Bhalla**. We assert the statements made and conclusions drawn are an outcome of my research work. We further certify that

- I. The work contained in the report is original and has been done by us under the general supervision of my supervisor.
- II. The work has not been submitted to any other Institution for any other degree/diploma/certificate in this university or any other University of India or abroad.
- III. We have followed the guidelines provided by the university in writing the report.
- IV. Whenever we have used materials (data, theoretical analysis, and text) from other sources, we have given due credit to them in the text of the report and giving their details in the references.

Student Name (with Roll no.)

Vishal Kumar(1731885)

Pankaj Kumar(1731879)

Shishant Sharma(1731880)

Gourav Bhardwaj(1731873)

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala

I.K.GujralPunjab Technical University (Main Campus), Kapurthala

CERTIFICATE

This is to certify that the project entitled "Thermal losses reduction in EV." Has been submitted to the Department of Electrical Engineering, I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY for the fulfilment of the award of the degree of Bachelor of technology by following students of final year B.Tech.(ELECTRICAL ENGINEERING).

STUDENT NAME(ROLL NO.)

VISHAL KUMAR (1731885)

SHISHANT SHARMA (1731880)

GOURAV BHARDWAJ (1731873)


PANKAJ KUMAR (1731879)

Dr. Deepika Bhala

(Project Guide)

Dr. Gagandeep Kaur

(Head of Department)


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144001

MODELLING AND SIMULATION OF PHOTOVOLTAIC SYSTEM

Submitted in partial fulfilment of the requirement for the award of degree
Of
Bachelor Of Technology
In
Electrical Engineering

SUBMITTED BY:-

GAURAV SAROYA	1731871
VIVEK BHAGAT	1731886
MUNISHKUMAR	1731877

GUIDED (ON-LINE) BY:-

DR. DEEPIKA BHALLA
(ASSISTANT PROFESSOR)



Gagandeep
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Department of Electrical Engineering
I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY
MAIN CAMPUS, KAPURTHAL

CERTIFICATION

This is to certify that the project entitled, "**MODELLING AND SIMULATION OF PHOTOVOLTAIC SYSTEM**" being submitted by **GAURAV SAROYA (1731871)**, **MUNISH KUMAR(1731877)** and **VIVEK BHAGAT(1731886)** partial fulfillment of requirement for the award of degree of **B.Tech. in ELECTRICAL ENGINEERING** submitted in the department of Electrical Engineering under **I.K.GUJRAL PUNJAB TECHNICAL UNIVERSITY ,KAPURTHALA** is a record of bonafide project work carried out during period from **AUGUST 2020 TO DECEMBER 2020** under (ON-LINE) guidance of (**Dr. DEEPIKA BHALLA**).

MUNISHKUMAR

1731877

GAURAVSAROYA

1731871

VIVEKBHAGAT

1731886

This is to certify that the above project work by the students of Batch (2017-2021) is correct to the best of my knowledge.

GUIDED (ON-LINE) BY:-

Dr. DEEPIKA BHALLA

(ASSISTANT PROFESSOR)

Department of Electrical Engineering

IKG PTU Main Campus, Kapurthala


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University,
Kapurthala-144006

DETECTION OF FAULT LOCATION IN UNDERGROUND CABLE

Submitted in partial fulfillment for the award of the degree

Of

BACHELOR OF TECHNOLOGY

In

ELECTRICAL ENGINEERING

SUBMITTED BY:-

NAME	ROLL NO
AMIT KUMAR	1818667
BALJINDER SINGH	1818669
MOHAMMAD RAFI	1731876
SHIVAM CHAUHAN	1731881

GUIDED (ON-LINE) By:-

Dr. DEEPIKA BHALLA

(ASSISTANT PROFESSOR)



Department of Electrical Engineering

LK GUJRAL PUNJAB TECHNICAL UNIVERSITY

MAIN CAMPUS, KAPURTHALA

Department of Electrical Engineering
Lk Gujral Punjab Technical University
Kapurthala-144006

Gagandeep

LSW

SOLAR TRACKING SYSTEM USING ARDUINO

Submitted in partial fulfillment for the award of the
degree
of

BACHELOR OF TECHNOLOGY
in

ELECTRICAL ENGINEERING

SUBMITTED BY :-

PRINCE.

1731636

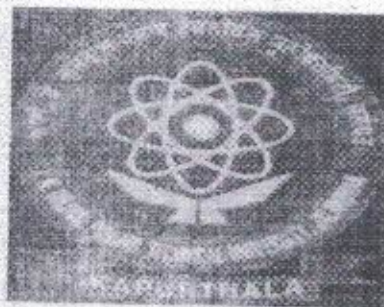
ROMANDEEP SINGH

1731637

Batch :-2017-21

Guided (on-line) by :- Dr. DEEPIKA BHALLA

Department of Electrical Engineering



IK GUJRAL PUNJAB TECHNICAL UNIVERSITY
MAIN CAMPUS, KAPURTHALA

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

108

CANDIDATE'S DECLARATION


This is to certify that the project entitled, " SOLAR TRACKING SYSTEM USING ARDUINO " being submitted by Prince (1731636), Romandeep singh (1731637) general fulfillment of requirements for the award of the degree of Bachelor of Technology, Electrical Engineering submitted in the Department of Electrical Engineering under I.K. Gujral Punjab Technical University, Kapurthala, is a record of qualified project work carried out during a period from August 2020, December 2020 under (online) guidance of Dr. DeepikaBhalla.

PRINCE.	ROMANDEEP SINGH
1731636.	1731637.

This is to certify that the above project work by the students of batch (2017-21) is correct to the best of my knowledge.

Dr. DeepikaBhalla (Online guide)
Department of Electrical Engineering
IKG PTU Main Campus, Kapurthala

Signature of H.D.O
(Electrical Department)


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-141006

Date: 15th April 2021

To Whom It May Concern

This is to certify that Mr. **Archit Sharma** has successfully completed his training from "15th Feb 2021 to 15th April 2021". During this training he was working on "PLC".

His overall performance during the training period was good and satisfactory.

Name of the organization: EME Technologies

Place of work: C-134 Puncom Technology Park, Phase 8 Industrial Area Mohali

Address of the employer: C-134 Puncom Technology Park, Phase 8 Industrial Area Mohali

Signature

Name: Mr Sunil Bhutani

Designation: Director



Authorized signatory with company seal

Sunil Bhutani
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



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Off. : WZ N-41, Vishnu Garden, New Delhi-18
Fac. : WZ N-104, Vishnu Garden, New Delhi-18
+9910198878, 9212198878
jogielectricals@gmail.com @

Evaluation Sheet from Industry

BTEE-721-18 One Semester Industrial Training

(Batch 2017-21)

(To be filled by student)

Student	Name	Anechit Sharma
	University Roll no	1781869
Industry/ Organization	Name	Jogi Electricals
	Address	D-56, Sector-3, Bawana Industrial Area Delhi - 110039
	Email Id	jogielectrical@gmail.com
	Contact number	9910198878

Evaluation of (tick in appropriate box)

Training Part-1	Software Training & Project or Industrial Training & Project	
Training Part-2	Industrial Training & Project or Software Training & Project	

(To be filled by Industry/Organization where training is undertaken)

Date of start of training	17 April, 2021
Date of end of training	17 June, 2021
Name of training officer/manager, In-charge	Hansinder Kumar
Designation	Inspector
Email Id	jogielectrical@gmail.com
Contact number	9910198878

	Mid-term evaluation	End-term evaluation
Maximum marks	25	25
Marks obtained	20	19

Signature: _____

Stamp



Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144005

Date: 23 June 2021

(To be submitted to Department of Electrical Engineering, IKGPTU Main campus Kapurthala, IKGPTU Jalandhar)

32



Wonder Automation Training Division

Works : E-192, Sector 74, Phase-B B, Industrial Area, Mohali (Punjab) INDIA

Tel.: +91-172-4623597, Mob. : +91-92150-33008

E-mail : rk@wonderplctrng.com, info@wonderplctrng.com Website : www.wonderplctrng.com

Ref. No. : WATD/1194

Date June, 2021

Ref. No: WATD/1194

DATE: 23-06-2021

To Whom It May Concern

It is to certify that Mr. **Gaurav Saroya S/o Sh. Balwinder Lal** student of B.tech Electrical Engineering from I.K. Gujral Punjab Technical University, Kapurthala, Punjab. Whose Roll Number is 1731871. He is undergoing the six months **Industrial Training** of PLC Automation in software part & hardware part at Wonder Automation Training Division, a Unit of Wonder Systems India Private Limited.

The Training period is 2nd February, 2021 to 2nd July, 2021.


(Rajinder Kaur)

Principal
Wonder Automation Training Division
E-192, Phase B-B Industrial Area,
S.A.S. Nagar, Mohali-160059


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144005



Automation Systems

Ludhiana Off. : 90-C, Shakti Enclave, Near Toor Complex & Matta Palace, Dugri Road.
Phone : 0161-4647954, M - 92163-12163 Email : info@automationsystems.org
Mohali Off.: Plot No : 442, Second Floor, Sector-82. Web: automationsystems.org

Ref.: AS02145026

Date: 23-06-2021

TO WHOM IT MAY CONCERN

This is to certify that Mr. **Gourav Bharadwaj**, S/O Mr. **Mohinder Singh** a student of B.Tech (Electrical Engineering, College Roll No. 1731873) of IK Gujral Punjab Technical University, Kapurthala has successfully completed 2 months **software training** programme from 19th April, 2021 to 19th June, 2021 through offline/online mode at our organization. During the period of his training, he worked on PLC and SCADA. He was found punctual, hardworking and inquisitive.

We wish him every success in life.



For Automation Systems,

Manmeet Batta

(Authorised Signatory)

Signature

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Authorised System Integrator

Schneider
Electric

Signature

Signature

RAIL COACH FACTORY, KAPURTHALA

Ref. No. VT 7386/21



Certificate

This is to certify that Mr./Miss GOURAV BHARADWAJ student of
College I. K. GUJRAL PUNJAB TECHNICAL UNIVERSITY 8th.
KAPURTHALA
Semester and Year FINAL bearing roll no. 1731873 of Electrical
Engg./..... was under Training in "Technical Training Centre, Rail Coach Factory,
Kapurthala (Pb.)" from 11/02/2021 to 10/04/2021 (08 weeks).

His/Her performance during the training was "Outstanding"

Date : 10/04/2021

Training Inspector

Regardes

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144005

Date: 15th April 2021

To Whom It May Concern

This is to certify that Mr. **Khamesh Sharma** has successfully completed his training from "15th Feb 2021 to 15th April 2021". During this training he was working on "PLC".

His overall performance during the training period was good and satisfactory.

Name of the organization: EME Technologies

Place of work: C-134 Puncom Technology Park, Phase 8 Industrial Area Mohali

Address of the employer: C-134 Puncom Technology Park, Phase 8 Industrial Area Mohali

Signature

Name: Mr Sunil Bhutani

Designation: Director



Sunil Bhutani
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Authorized signatory with company seal

GETECH Pvt. Ltd.

Mfrs. of: FIRE Extinguishers, Equipments & Sprinklers
Plot No. 1725, M.I.E., Part-"B" Bahadurgarh- 124507, Haryana
Mob. : +91-7355778188, E-Mail : hyn.getech@gmail.com
website : www.getech.in

Date: 16th JUNE 2021

TO WHOM IT MAY CONCERN

This is to certify that Mr **Khamesh Sharma** has successfully completed his **industrial internship** from "16th April 2021 to 16th June 2021". During this internship he was working on "Company Internal project" in "Technical and Quality department" under the Guidance of "Mr Rakesh Kumar".

His overall performance during the internship period was good.

Name of the organization: GETECH Pvt. Ltd.

Place of work: Plot No. 1725, M.I.E, part-"B" Bahadurgarh, Haryana

Address of the employer: Plot No. 1725, M.I.E, part-"B" Haryana

Stipend: Free of cost internship

Signature

Name: Mr Gaurav Sharma

Designation: Technical Head

Department: Technical & Administration

Gazandeep
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



Authorized signatory with company seal



uh

Date : 28-05-2021

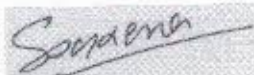
TO WHOM-SO-EVER IT MAY CONCERN

This is to certify that Ms. Kumari Anshu has served as a Trainee, in the Training of Checking the Healthiness / adequacy of 220/ 110/ 50V DC Systems at Telecel Communications (P) LTD., Delhi, India.

During the tenure, she has been found sincere, reliable, trustworthy and sociable. She has a genial temperament and can efficiently work in a team. She had a good overall performance during her tenure of employment.

We wish her all the best in her future endeavors.

Sunil Saxena



HOED

Telecel Communications Private Limited

Telecel Communications Private Limited
3, Bela Road, Civil Lines,
Delhi -110 054, India.
E-mail: sunilssaxena@msn.com

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Registered office: 3, Bela Road, Civil Lines, Delhi -110 054, India.
Tel: +91 (11) 23953636, Mobile No.:9873676950;

485

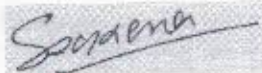
Date : 28-05-2021

TO WHOM-SO-EVER IT MAY CONCERN

This is to certify that Ms. Kumari Anshu has served as a Trainee, in the Software Trainings at Telecel Communications (P) LTD., Delhi, India.


During the tenure, she has been found sincere, reliable, trustworthy and sociable. She has a genial temperament and can efficiently work in a team. She had a good overall performance during her tenure of employment.

We wish her all the best in her future endeavors. Sunil Saxena



HOED
Telecel Communications Private Limited

Telecel Communications Private Limited 3, Beka
Road, Civil Lines,
Delhi -110 054, India.
E-mail: sunilssaxena@msn.com


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Registered office: 3, Beka Road, Civil Lines, Delhi -110 054, India.
Tel: +91 (11) 23953636, Mobile No. :9873676950;



Edit with WPS Office

Nt

46



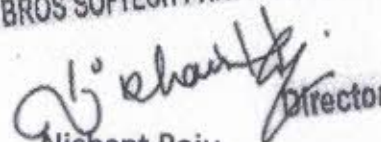
RAJU BROS SOFTECH PRIVATE LIMITED

CERTIFICATE OF TRAINING (INDUSTRIAL)

This is to certify that Mr. **Mohammad Rafi** bearing roll number 1731876 from Punjab Technical University, Jalandhar, has completed his basic **Software training** in IoT which was held from 08-02-2021 to 30-05-2021 as a part of their B.Tech in Electrical Engineering Programme. During this period he undergoes training in various modules of IoT and his performance is satisfactory.

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapthahar-146006

FOR RAJU BROS SOFTECH PRIVATE LIMITED


Nishant Raju
Director

Director
Raju Bros Softech Pvt. Ltd.



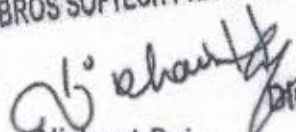


RAJU BROS SOFTECH PRIVATE LIMITED

CERTIFICATE OF TRAINING (INDUSTRIAL)

This is to certify that Mr. *Mohammad Rafi* bearing roll number 1731876 from Punjab Technical University, Jalandhar, has completed his **Industrial training in IoT** which was held from 08-02-2021 to 30-05-2021 as a part of their B.Tech in Electrical Engineering Programme. During this period he undergoes training in various modules of IoT and his performance is satisfactory.

FOR RAJU BROS SOFTECH PRIVATE LIMITED


Nishant Raju
Director

Raju Bros Softech Pvt. Ltd.


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



Wonder Automation Training Division

Works : E-192, Sector 74, Phase-8 B, Industrial Area, Mohali (Punjab) INDIA

Tel : +91-172-4623597, Mob : +91-92160-33608

E-mail : rk@wonderpictrg.com, info@wonderpictrg.com Website : www.wonderpictrg.com

Ref No: WATD/1193

Date: June, 2021


Ref. No: WATD/1193

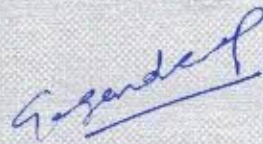
DATE: 23-06-2021

To Whom It May Concern

It is to certify that Mr. Munish Kumar S/o Sh. Krishan Murari student of B.tech Electrical Engineering from I.K. Gujral Punjab Technical University, Kapurthala, Punjab. Whose Roll Number is 1731877. He is undergoing the six months Industrial Training of PLC Automation in software part & hardware part at Wonder Automation Training Division, a Unit of Wonder Systems India Private Limited.

The Training period is 2nd February, 2021 to 2nd July, 2021.


(Rajinder Kaur)
Wonder Automation Training Division
Principal
S.A.S. Nagar, Mohali-160059


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144506





Wonder Automation Training Division

(ISO certified 9001:2015)

E-192, SECTOR 74, S.A.S. NAGAR, MOHALI, PUNJAB, INDIA
E-mail : info@wonderplctrng.com URL : www.wonderplctrng.com

Certificate

Sr. No. WATD/2/7/1745

This is to certify that

Mr./Ms. MUNISH KUMAR S/O SH. KRISHAN MURARI

Having Completed 6 months/3 months Specialised Training in PLC Programming/
Drives /HMI/SCADA from.....02-02-2021.....To.....02-07-2021.....

and satisfying the requirements is awarded this CERTIFICATE IN AUTOMATION.

His/Her performance has been assessed by a panel of experts and He/She has been declared to
have successfully completed the course.

Gagandeep

This certificate of proficiency is awarded to him/her.

Head
Department of Electrical Engineering
Gurukul Punjab Technical University
Rajmaha-144006

Rajinder
PRINCIPAL

Gagandeep
DIRECTOR

DATE JULY, 2021

Office of the Executive Engineer,
Electricity Transmission Division,
132 KV Sub-Station, Kunera,
ETAWAH - 206001.

08874204705



कार्यालय अधिशासी अभियन्ता,
विद्युत पारेषण खण्ड,
132 के०वी० उप-संस्थान, कुनेरा
इटावा-206002.

E-mail: eeetdetaawa@upptcl.org
E-mail: eeetdetaawa@gmail.com

NO. 1915 /ETD (E)/Summer Vocational Training

Dated: 12.07.19

Provisional Certificate

Certified that **Mr. Neelmani S/o Shri Sateesh Kumar** student of B.tech in Electrical Engineering -2nd year, under Department of Electrical Engineering (U.P.) has gone summer vocational training w.e.f. 29-05-2019 to 28-06-2019 at 220kv s/s Bharfhana Under Electricity Transmission Division-Etawah. During the summer vocational training his conduct found very good.

My wishes for his good future

[Signature]
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

[Signature]
(Ajat Shatru)

Executive Engineer

NO. 1915 /ETD (E)/Summer Vocational Training Dated. 12.07.19

Copy Forwarded to the following for information and necessary action.

1. SDO (Transmission) Bharfhana.
2. Mr. Neelmani.

Received

[Signature]

12-7-19

[Signature]
(Ajat Shatru)

Executive Engineer

51

AMOGEO ITES INDIA LIMITED

DELHI
NOIDA
DEHRADUN
Tel
Email

:A 87, Malviya Nagar, New Delhi 110 017;
:D 75, Sector 49, Noida, U.P. - 201301;
:21 UG, Capri, Connaught Place, Dehradun 248001;
:Delhi-NCR: +91 120 4710164 ; MOB: +91 7906272471;
:info@amogeo.com; amogeoncr@gmail.com



TO WHOMSOEVER IT MAY EVER CONCERN

This is certified that MR. NEELMANI S/O SH. SATISH KUMAR RESIDENT of Ureng, Etawah (U.P.), studying in ELECTRICAL ENGINEERING at I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY (Institute REGISTRATION NO. 1731879), has completed his Software training on AUTOCAD 2D & PVSYST software at AMOGEO ITES INDIA LIMITED from 12/04/2021 to 11/06/2021. During his training with us, his was found to be very hard working. There is no objection on his performance. We wish him success in his future life.



PREETI RAWAT
MANAGER



Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



PUNJAB STATE POWER CORPORATION LTD.



(Regd. Office: PSEB Head Office, The Mall, Patiala)
Office of Resident Engineer/OP, UBDC Malikpur/Pathankot
Phone No. 0186-2345020, Fax No. 0186-2345045



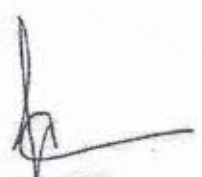
Ref.....43

Dated.....23-04-2021

TO WHOM IT MAY CONCERN

This is certify that Mr. **PANKAJ KUMAR S/O Sh. RAJ KUMAR** Resident of village/city- **LOHGARH, P.O.- DINANAGAR, DIST.- GURDASPUR**. He is studying in **ELECTRICAL ENGINEERING** at **I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY (KAPURTHALA)**. Having Institute **REGISTRATION NO. 1731879**. He has done industrial training at **UBDC PH.NO 2 SUJANPUR** from **04/02/2021** to **03/04/2021**. During this period, he seems to be very hard working student and punctual level of his technical knowledge & performance is excellent.

There is no objection on his performance. We wish him success in his future life.


AEE MTC.
UBDC E.H. NO-2
PSPCL SUJANPUR (PTK)
For Resident Engineer/OP.

UBDC, PSPCL

Malikpur, Pathankot


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

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53

S. No. 1135

Regd. No. SSS/TRG/2021/EE/1135

ISO
9001:2015

Shineway Software Solution




(Regd. by Govt. of India)

Company Regd. No. : 3980

ISO No. : 2493SAFV2020

Certificate


**Hewlett Packard
Enterprise**

Name of the Course : **AUTOMATION**

Course Duration **2 MONTHS** from **05 APR 2021** to **04 JUN 2021**

This is to certify that Mr./Ms **PANKAJ KUMAR**

S/D. of **RAJ KUMAR** Mother Name **SURINDER KUMARI**

R/o **VILL - LOHGARH, P.O. - DINANAGAR, DISTT. - GURDASPUR** has Passed in

the Final examination of **AUTOMATION**

His/Her date of Birth **08-01-1999** (in figure) **EIGHTH JANUARY**

..... **NINETEEN HUNDRED NINETY NINE** (in words)

(As per certificate submitted by the student)


DIRECTOR

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Date of Issue **14 JUN 2021**

Scanned with CamScanner

54

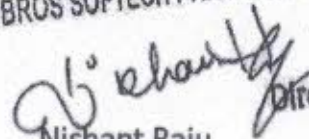


RAJU BROS SOFTECH PRIVATE LIMITED


CERTIFICATE OF TRAINING

This is to certify that Mr. **Shishant Sharma** bearing roll number 1731880 from Punjab Technical University, Jalandhar, has completed his basic software training in IoT which was held from 08-02-2021 to 30-05-2021 as a part of their B.Tech in Electrical Engineering Programme. During this period he undergoes training in various modules of IoT and his performance is satisfactory.

FOR RAJU BROS SOFTECH PRIVATE LIMITED


Nishant Raju
Director

Raju Bros Softech Pvt. Ltd.


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

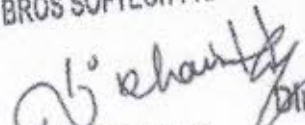


RAJU BROS SOFTECH PRIVATE LIMITED


CERTIFICATE OF TRAINING (INDUSTRIAL)

This is to certify that Mr. **Shivam Chauhan** bearing roll number 1731881 from Punjab Technical University, Jalandhar, has completed his **Industrial training** in IoT which was held from 08-02-2021 to 30-05-2021 as a part of their B.Tech in Electrical Engineering Programme. During this period he undergoes training in various modules of IoT and his performance is satisfactory.

FOR RAJU BROS SOFTECH PRIVATE LIMITED


Nishant Raju
Director

Raju Bros Softech Pvt. Ltd.


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

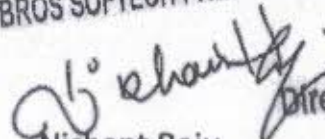


RAJU BROS SOFTECH PRIVATE LIMITED

CERTIFICATE OF TRAINING

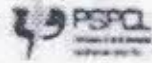
This is to certify that Mr. **Shivam Chauhan** bearing roll number 1731881 from Punjab Technical University, Jalandhar, has completed his basic **Software training in IoT** which was held from 08-02-2021 to 30-05-2021 as a part of their B.Tech in Electrical Engineering Programme. During this period he undergoes training in various modules of IoT and his performance is satisfactory.

FOR RAJU BROS SOFTECH PRIVATE LIMITED


Nishant Raju
Director

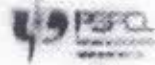
Raju Bros Softech Pvt. Ltd.


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



PUNJAB STATE POWER CORPORATION LTD.

(Regd. Office: PSEB Head Office, The Mall, Patiala)
Office of Resident Engineer/OP, UBDC Malikpur/Pathankot
Phone No. 0186-2345020, Fax No. 0186-2345045




Ref. 56
Dated 07-06-2021

TO WHOM IT MAY CONCERN

This is certify that Mr. **SOURAV VERMA** S/O Sh. YASH PAUL, VERMA Resident of village/city- BAMIAL, P.O.-BAMIAL, DIST.- PATHANKOT. He is studying in ELECTRICAL ENGINEERING at I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY (KAPURTHALA). Having Institute REGISTRATION NO. 1731803. He has done Industrial training at UBDC PH.NO 2 SUJANPUR from 05/03/2021 to 01/05/2021. During this period, he seems to be very hard working student and punctual level of his technical knowledge & performance is excellent.

There is no objection on his performance. We wish him success in his future life.


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006


AEE ETC.
UBDC P.H. NO-2
PSPCL SUJANPUR (PTK)
For Resident Engineer/OP
UBDC, PSPCL, Malikpur, Pathankot





(A Division of)

iGen Solutions

2nd Floor, Mehta Tower, Bank of Baroda
Opp.- Hotel Venice, Dhangu
Road, Pathankot. -145001(Punjab)
Email – igenedu.ptk@gmail.com
Website:- www.igenedu.com
Tele: 0186-5082412

Issue Date: 19TH JUNE 2021

PROVISIONAL CERTIFICATE

This is to certify that **Mr. SOURAV VERMA** Student of **I.K GUJRAL PUNJAB TECHNICAL UNIVERSITY** has completed His **Industrial Training in Automation** at IGEN Edutronics Pathankot. The Training started on **MAY-2021**, and duration of the Training was **45 Days**.

His /Her performance during the course period was very good. He/She had been regular & sincere to the course undertaken.

Bhawna

AUTHORISED SIGNATORY

Ms. Bhawna

(H.R Manager)

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Pathankot-144006



RAJU BROS SOFTECH PRIVATE LIMITED

CERTIFICATE OF TRAINING

This is to certify that Mr. *Vishal Kumar* bearing roll number 1731885 from Punjab Technical University, Jalandhar, has completed his basic software training in IoT which was held from 08-02-2021 to 30-05-2021 as a part of their B.Tech in Electrical Engineering Programme. During this period he undergoes training in various modules of IoT and his performance is satisfactory.

FOR RAJU BROS SOFTECH PRIVATE LIMITED

Nishant Raju
Nishant Raju
Director

Raju Bros Softech Pvt. Ltd.

Sagandeef

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

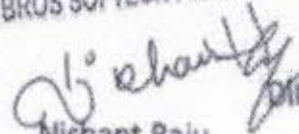


RAJU BROS SOFTECH PRIVATE LIMITED

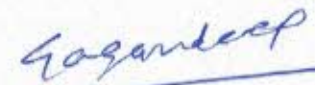
CERTIFICATE OF TRAINING (INDUSTRIAL)

This is to certify that Mr. **Vishal Kumar** bearing roll number 1731885 from Punjab Technical University, Jalandhar, has completed his **Industrial training** in IoT which was held from 08-02-2021 to 30-05-2021 as a part of their B.Tech in Electrical Engineering Programme. During this period he undergoes training in various modules of IoT and his performance is satisfactory.

FOR RAJU BROS SOFTECH PRIVATE LIMITED


Nishant Raju
Director

Raju Bros Softech Pvt. Ltd.



Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



Wonder Automation Training Division

Works : E-192, Sector 74, Phase-B B, Industrial Area, Mohali (Punjab) INDIA

Tel.: +91-172-4623597, Mob. : +91-92160-33008

E-mail : rk@wonderplctrng.com, info@wonderplctrng.com Website : www.wonderplctrng.com

Ref. No. : WATD/1195

Date June, 2021.

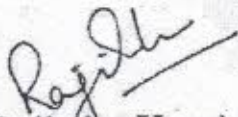
Ref. No: WATD/1195

DATE: 23-06-2021

To Whom It May Concern

It is to certify that Mr. Vivek Bhagat S/o Sh. Surinder Kumar student of B.tech Electrical Engineering from I.K Gujral Punjab Technical University, Kapurthala, Punjab. Whose Roll Number is 1731886. He is undergoing the six months Industrial Training of PLC Automation in software part & hardware part at Wonder Automation Training Division, a Unit of Wonder Systems India Private Limited.

The Training period is 2nd February, 2021 to 2nd July, 2021.


(Rajinder Kaur)
Wonder Automation Training Division
E-192, Phase 8-B Industrial Area,
S.A.S. Nagar, Mohali-160059


Head
Department of Electrical Engineering
Gujral Punjab Technical University
Kapurthala-144005



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Date: 15th June 2021

To Whom It May Concern

This is to certify that Mr. Abhishek Verma has successfully completed his training from "16th April 2021 to 15th June 2021". During this training he was working on "PLC".

His overall performance during the training period was good and satisfactory.

Name of the organization: EME Technologies

Place of work: C-134 Puncom Technology Park, Phase 8 Industrial Area Mohali

Address of the employer: C-134 Puncom Technology Park, Phase 8 Industrial Area Mohali

Signature

Name: Mr Sunil Bhutani

Designation: Director



Gagandeep
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Authorized signatory with company seal

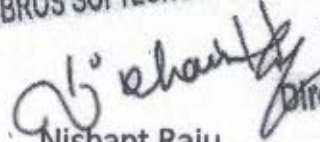


RAJU BROS SOFTECH PRIVATE LIMITED


CERTIFICATE OF TRAINING

This is to certify that Mr. Amit Kumar bearing roll number 1818667 from Punjab Technical University, Jalandhar, has completed his basic software training in IoT which was held from 08-02-2021 to 30-05-2021 as a part of their B.Tech in Electrical Engineering Programme. During this period he undergoes training in various modules of IoT and his performance is satisfactory.

FOR RAJU BROS SOFTECH PRIVATE LIMITED


Nishant Raju
Director

Raju Bros Softech Pvt. Ltd.


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

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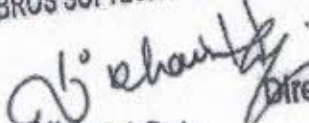
RAJU BROS SOFTECH PRIVATE LIMITED

CERTIFICATE OF TRAINING (INDUSTRIAL)

This is to certify that Mr. **Amit Kumar** bearing roll number 1818667 from Punjab Technical University, Jalandhar, has completed his **Industrial training in IoT** which was held from 08-02-2021 to 30-05-2021 as a part of their B.Tech in Electrical Engineering Programme. During this period he undergoes training in various modules of IoT and his performance is satisfactory.

FOR RAJU BROS SOFTECH PRIVATE LIMITED


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Jalandhar-144006


Nishant Raju
Director

Raju Bros Softech Pvt. Ltd.

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Date: 15th April 2021

To Whom It May Concern

This is to certify that **Mr. Anshul Kanwar** has successfully completed his training from "15th Feb 2021 to 15th April 2021". During this training he was working on "PLC".

His overall performance during the training period was good and satisfactory.

Name of the organization: EME Technologies

Place of work: C-134 Puncom Technology Park, Phase 8 Industrial Area Mohali

Address of the employer: C-134 Puncom Technology Park, Phase 8 Industrial Area Mohali

Signature

Name: Mr Sunil Bhutani

Designation: Director



Gagandeep
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Authorized signatory with company seal

CB

GETECH Pvt. Ltd.

Mfrs. of : FIRE Extinguishers, Equipments & Sprinklers
Plot No. 1725, M.I.E., Part-"B" Bahadurgarh- 124507, Haryana
Mob. : +91-7355778188, E-Mail : hyn.getech@gmail.com
website : www.getech.in

Date: 16th JUNE 2021

TO WHOM IT MAY CONCERN

This is to certify that Mr **Anshul kanwar** has successfully completed his **industrial internship** from "16th April 2021 to 16th June 2021". During this internship he was working on "Company Internal project" in "Technical and Quality department" under the Guidance of "Mr Rakesh Kumar".

His overall performance during the internship period was good.

Name of the organization: GETECH Pvt. Ltd.

Place of work: Plot No. 1725, M.I.E, part-"B" Bahadurgarh, Haryana

Address of the employer: Plot No. 1725, M.I.E, part-"B" Haryana

Stipend: Free of cost internship

Signature

Name: Mr Gaurav Sharma

Designation: Technical Head

Department: Technical & Administration



G. Gaurav Sharma
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Authorized signatory with company seal



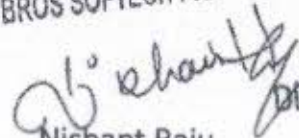


RAJU BROS SOFTECH PRIVATE LIMITED

CERTIFICATE OF TRAINING (INDUSTRIAL)

This is to certify that Mr. **Baljinder Singh** bearing roll number 1818669 from Punjab Technical University, Jalandhar, has completed his **Industrial training** in IoT which was held from 08-02-2021 to 30-05-2021 as a part of their B.Tech in Electrical Engineering Programme. During this period he undergoes training in various modules of IoT and his performance is satisfactory.

FOR RAJU BROS SOFTECH PRIVATE LIMITED


Nishant Raju
Director

Raju Bros Softech Pvt. Ltd.


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



RAJU BROS SOFTECH PRIVATE LIMITED

CERTIFICATE OF TRAINING

This is to certify that Mr. *Baljinder Singh* bearing roll number 1818669 from Punjab Technical University, Jalandhar, has completed his basic software training in IoT which was held from 08-02-2021 to 30-05-2021 as a part of their B.Tech in Electrical Engineering Programme. During this period he undergoes training in various modules of IoT and his performance is satisfactory.

FOR RAJU BROS SOFTECH PRIVATE LIMITED

Nishant Raju
Nishant Raju
Director

Raju Bros Softech Pvt. Ltd.

Legend
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



Automation Systems

Ludhiana Off. : 90-C, Shakti Enclave, Near Toor Complex & Matta Palace, Dugri Road.
Phone : 0161-4647954, M – 92163-12163 Email : info@automationsystems.org
Mohali Off.: Plot No : 442, Second Floor, Sector-82. Web: automationsystems.org

Ref.: AS02145025

Date: 23-06-2020

TO WHOM IT MAY CONCERN

This is to certify that **Mr. Gagan Sharma**, S/O Mr. **Vijay Kumar** a student of B.Tech (Electrical Engineering, College Roll No. 1818670) of IK Gujral Punjab Technical University, Kapurthala has successfully completed 2 months **software training** programme from 19th April, 2021 to 19th June, 2021 through offline/online mode at our organization. During the period of his training, he worked on PLC and SCADA. He was found punctual, hardworking and inquisitive.

We wish him every success in life.

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



For Automation Systems,

Manmeet Batta

(Authorised Signatory)

Authorised System Integrator

Schneider
Electric

RAIL COACH FACTORY, KAPURTHALA

Ref. No. VT 7387/21



Certificate

This is to certify that Mr./Miss GAGAN SHARMA student of
College I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY of 8th.
KAPURTHALA
Semester and Year FINAL bearing roll no. 1818670 of Electrical
Engg./..... was under Training in "Technical Training Centre, Rail Coach Factory,
Kapurthala (Pb.)" from 11/02/2021 to 10/04/2021 (08 weeks).

His/Her performance during the training was "Outstanding"

Date : 10/04/2021

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Training Supervisor

Date: 15th June 2021

To Whom It May Concern

This is to certify that Mr. **Paras Sharma** has successfully completed his training from "16th April 2021 to 15th June 2021". During this training he was working on "PLC".

His overall performance during the training period was good and satisfactory.

Name of the organization: EME Technologies


Place of work: C-134 Puncom Technology Park, Phase 8 Industrial Area Mohali

Address of the employer: C-134 Puncom Technology Park, Phase 8 Industrial Area Mohali

Signature

Name: Mr Sunil Bhutani

Designation: Director


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



Authorized signatory with company seal



Date: 15th April 2021

To Whom It May Concern

This is to certify that Mr. Prince Saklani has successfully completed his training from "15th Feb 2021 to 15th April 2021". During this training he was working on "PLC".

His overall performance during the training period was good and satisfactory.

Name of the organization: EME Technologies

Place of work: C-134 Puncom Technology Park, Phase 8 Industrial Area Mohali

Address of the employer: C-134 Puncom Technology Park, Phase 8 Industrial Area Mohali

Signature

Name: Mr Sunil Bhutani

Designation: Director



Gagandeep
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Authorized signatory with company seal

GETECH Pvt. Ltd.

Mfrs. of : FIRE Extinguishers, Equipments & Sprinklers
Plot No. 1725, M.I.E., Part-"B" Bahadurgarh- 124507, Haryana
Mob. : +91-7355778188, E-Mail : hyn.getech@gmail.com
website : www.getech.in

Date: 16th JUNE 2021

TO WHOM IT MAY CONCERN

This is to certify that Mr Prince Saklani has successfully completed his industrial internship from "16th April 2021 to 16th June 2021". During this internship he was working on "Company Internal project" in "Technical and Quality department" under the Guidance of "Mr Rakesh Kumar".

His overall performance during the internship period was good.

Name of the organization: GETECH Pvt. Ltd.

Place of work: Plot No. 1725, M.I.E, part-"B" Bahadurgarh, Haryana

Address of the employer: Plot No. 1725, M.I.E, part-"B" Haryana

Stipend: Free of cost internship

Signature

Name: Mr Gaurav Sharma

Designation: Technical Head

Department: Technical & Administration



Gaurav Sharma
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical Un
Kapurthala-144006

Authorized signatory with company seal



ju

Date: 15th JUNE 2021

To Whom It May Concern

This is to certify that Ms. **Kavita Pathak** has successfully completed her industrial internship from "25-04-2021 to 15-06-2021". During this internship she was working on "PLC".

Her overall performance during the internship period was good and satisfactory.

Name of the organization: EME Technologies

Place of work: C-134 Puncom Technology Park, Phase 8 Industrial Area Mohali

Address of the employer: C-134 Puncom Technology Park, Phase 8 Industrial Area Mohali

Signature

Name: Mr Sunil Bhutani

Designation: Director



Head

Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

Authorized signatory with company seal



PUNJAB STATE TRANSMISSION
CORPORATION LIMITED

Punjab State Transmission Corporation Ltd.

Regd. Office, PSEB Head Office, The Mall, Patiala

.....
This is to certify that **Kavita Pathak (Roll no.1731841)** student of B.Tech in Electrical Engineering, studying in I.K. Gujral Punjab Technical University, Jalandhar has successfully completed his/her training from 24.02.2021 to 24.04.2021 at 220KV Sub-Station Ferozepur (P&M Division, Ferozepur) in compliance to this Office Order No. 22, Dated 23.02.2021.

DURING THE TRAINING, HIS/HER WORK AND CONDUCT WAS FOUND VERY GOOD

HE/SHE IS DILIGENT AND SINCERE INDIVIDUAL.

de *Q*
Date of Issue: 26.05.2021

Hardeep
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical Univer.
Kapurthala-144606

24/5/21
SR.XEN/TRAINING CELL
PSTCL, PATIALA

Evaluation Sheet from Industry
BTEE-721-18 One Semester Industrial Training
(Batch 2017-21)
(To be filled by student)

Student	Name	Prince
	University Roll no	1731636
Industry/ Organization	Name	ThinkNEXT Technologies Private Limited
	Address	S.C.F-113, Phase-11, Sector-65, Mohali (Chandigarh)
	Email Id	info@thinknext.co.in
	Contact number	7837404000

Evaluation of (tick in appropriate box)

Training Part-2	Industrial Training & Project	✓
-----------------	-------------------------------	---

(To be filled by Industry/Organization where training is undertaken)

Date of start of training	05-February-2021
Date of end of training	15-June-2021
Name of training officer/manager, In-charge	Ramandeep Kaur
Designation	HR-Manager
Email Id	info@thinknext.co.in
Contact number	7837402000

	Mid-term evaluation	End-term evaluation
Maximum marks	25	25
Marks obtained	24	25

For ThinkNEXT Technologies Pvt. Ltd.

Prince
Authorized Signatory

Ramandeep
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-141006

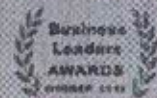
Date: 24-June-2021

RA

Think**NEXT**™

Innovation at every step...

ISO 9001:2015 Certified Company



ISO Certified

Member of Confederation
of Indian Industry

Certificate

This Certificate do hereby recognizes that

Romandeep Singh S/o Jagtar Singhhas successfully completed Software Training Program from5th February 2021

to

30th April 2021

in

PLC/SCADAGrade A

For ThinkNEXT Technologies Pvt. Ltd.

Authorised Signatory

Member Training Division

For ThinkNEXT Technologies Pvt. Ltd.

Director

Director



Scan and verify your Certificate

Certificate ID:380253

Ref.No. TNT/C-21/4753

Certificate of
Excellence

ThinkNEXT™

Innovation at every step...

ISO 9001:2015 Certified Company



Scan and verify your Certificate

Certificate ID: 457643

Ref.No. TNT/C-21/5053

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144606

Forwarded

2

Certificate

This Certificate do hereby recognizes that

Romandeep Singh S/o Jagtar Singh

has successfully completed Hardware Training Program from

03rd May 2021

to

15th June 2021

in PLC/SCADA

Grade A

For ThinkNEXT Technologies Pvt. Ltd.

R. V. Singh
Authorized Signatory

For ThinkNEXT Technologies Pvt. Ltd.

Munish R. Jhal
Director

Member Training Division

Director



ISO Certified



Member of Confederation of Indian Industry



Evaluation Sheet from Industry

BTEE-721-18 One Semester Industrial Training

(Batch 2017-21)

(To be filled by student)

Student	Name	Prince
	University Roll no	1731636
Industry/ Organization	Name	ThinkNEXT Technologies Private Limited
	Address	S.C.F-113, Phase-11, Sector-65, Mohali (Chandigarh)
	Email Id	info@thinknext.co.in
	Contact number	7837404000

Evaluation of (tick in appropriate box)

Training Part-1	Software Training & Project	✓
-----------------	-----------------------------	---

(To be filled by Industry/Organization where training is undertaken)

Date of start of training	05-February-2021
Date of end of training	15-June-2021
Name of training officer/manager, In-charge	Ramandeep Kaur
Designation	HR-Manager
Email Id	info@thinknext.co.in
Contact number	7837402000

	Mid-term evaluation	End-term evaluation
Maximum marks	25	25
Marks obtained	24	25

For ThinkNEXT Technologies Pvt. Ltd.

Head
Authorized Signatory

Department of Electrical Engineering
I.K. Gujral Punjab Technical U
Kapurthala-144006

Date: 24-June-2021

80

A PROJECT REPORT
ON
UNDERGROUND CABLE FAULT DETECTION
USING ARDUINO



SUBMITTED IN PARTIAL FULFILLMENT OF
REQUIREMENT OF A BACHELOR OF TECHNOLOGY IN
ELECTRICAL ENGINEERING

2021

SUBMITTED TO:-

DR. GAGANDEEP KAUR
HEAD OF DEPARTMENT
ELECTRICAL ENGINEERING

SUBMITTED BY:-

ABHINAV PATHANIA (1818650)
PRITISH TUTEJA (1818660)
RAMANDEEP SINGH (1818662)
(6th Semester)

I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY
MAIN CAMPUS, KAPURTHALA

Gagandeep
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

P

86

I.K.GUJRAL PUNJAB TECHNICAL UNIVERSITY, KAPURTHALA
MAIN CAMPUS
Department of Electrical Engineering


CERTIFICATE


This is to certify that the Project-I entitled "Underground Cable Fault Detection using Arduino" is the research work carried by following students as team in session Jan-May 2021(one semester) in partial fulfilment of the requirements of curriculum of B.Tech Electrical Engineering. This project has not been formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

Abhinav Pathania (1818650)

Pritish Tuteja (1818660)

Ramandeep Singh (1818662)


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



Head



82

I.K GUJRAL PUNJAB TECHNICAL
UNIVERSITY MAIN CAMPUS
(KAPURTHALA)



PROJECT REPORT FILE

Gagandeep

SUBMITTED TO: DR. GAGANDEEP KAUR
(HEAD OF DEPARTMENT EE)

SUBMITTED BY: LOVEPREET SINGH(1916679)
HARMANPREET SINGH(1916677)
SURAJ PARKASH(1916682)

B.TECH (ELECTRICAL ENGG.), 6TH SEMESTER
3RD YEAR

Gagandeep
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

P

I.K.GUJRAL PUNJAB TECHNICAL UNIVERSITY, KAPURTHALA
MAIN CAMPUS
Department of Electrical Engineering

CERTIFICATE

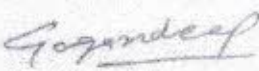
This is to certify that the Project-I entitled "Soft Starting Methods of Three Phase Induction Motor" is the research work carried by following students as team in session Jan-May 2021(one semester) in partial fulfilment of the requirements of curriculum of B.Tech Electrical Engineering. This project has not been formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

Lovepreet Singh (1916679)

Harmanpreet Singh (1916677)

Suraj Parkash (1916682)


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



Head



A PROJECT REPORT
ON
ATM SECURITY BY FACE MATRIX RECOGNITION



SUBMITTED IN PARTIAL FULFILLMENT OF REQUIREMENT OF A
BACHELOR OF TECHNOLOGY IN ELECTRICAL ENGINEERING

Gagandeep 2021

SUBMITTED TO:-

**DR. GAGANDEEP KAUR
HEAD OF DEPARTMENT
ELECTRICAL ENGINEERING**

Gagandeep
Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-141006

SUBMITTED BY:-

**HARKARAN (1818655)
IQBAL SINGH (1916678)
NAVKIRAT SINGH (1916680)
PANKAJ K. GAUTAM (1916681)
6th SEMESTER**

I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY
MAIN CAMPUS, KAPURTHALA

90

I.K.GUJRAL PUNJAB TECHNICAL UNIVERSITY, KAPURTHALA
MAIN CAMPUS
Department of Electrical Engineering

CERTIFICATE

This is to certify that the Project-I entitled "ATM Security by Face Matrix Recognition" is the research work carried by following students as team in session Jan-May 2021(one semester) in partial fulfilment of the requirements of curriculum of B.Tech Electrical Engineering. This project has not been formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

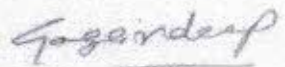
Harkaran (1818655)

Iqbal Singh (1916678)

Navkirat Singh (1916680)

Pankaj K. Gautam (1916681)


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-146006



Head



**A PROJECT REPORT ON
HUMAN ENERGY HARVESTER**



**SUBMITTED IN PARTIAL FULFILLMENT OF REQUIREMENT OF A
BACHELOR OF TECHNOLOGY IN ELECTRICAL ENGINEERING**

2021

Gagandeep

SUBMITTED TO:-

**DR. GAGANDEEP KAUR
HEAD OF DEPARTMENT
ELECTRICAL ENGINEERING**

Gagandeep

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144005

SUBMITTED BY:-

BHANU PRATAP SINGH(1818653)

GAGANDEEP (1818654)

HARSHDEEP RAI (1818656)

MANGA(1818658)

I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY

Q

I.K.G.UJAL PUNJAB TECHNICAL UNIVERSITY, KAPURTHALA
MAIN CAMPUS
Department of Electrical Engineering

CERTIFICATE

This is to certify that the Project-I entitled "**Human Energy Harvester**" is the research work carried by following students as term in session Jan-May 2021(one semester) in partial fulfilment of the requirements of curriculum of B.Tech Electrical Engineering. This project has not been formed for the award previously of any degree, diploma, associateship, fellowship or any other title.

Bhanu Pratap Singh (1818153)

Gagandeep (1818154)

Harshdeep Rai (1818155)

Manga (1818158)


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala

Head

I.K.GUJRAL PUNJAB TECHNICAL UNIVERSITY, KAPURTHALA
MAIN CAMPUS
Department of Electrical Engineering

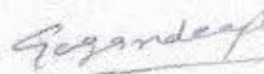
CERTIFICATE

This is to certify that the Project-I entitled "**Human Energy Harvester**" is the research work carried by following students as team in session Jan-May 2021(one semester) in partial fulfilment of the requirements of curriculum of B.Tech Electrical Engineering. This project has not been formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

Bhanu Pratap Singh (1818653)

Gagandeep (1818654)

Harshdeep Rai (1818656)



Head


Head
Department of Electrical Engineering
Technical University

**A PROJECT REPORT
ON
SINGLE AXIS SOLAR TRACKER SYSTEM**



**SUBMITTED IN PARTIAL FULFILLMENT OF REQUIREMENT
OF A BACHELOR OF TECHNOLOGY IN ELECTRICAL ENGINEERING**

2021

SUBMITTED TO:

DR. GAGANDEEP KAUR

HEAD OF DEPARTMENT

ELECTRICAL ENGINEERING

Head

**Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006**

SUBMITTED BY:

YAMINI (1818665)

ANKUR (1818651)

KARTIKAY (1818657)

PRIYA (1818661)

6TH SEMESTER

I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY MAIN CAMPUS, KAPURTHALA.

I.K.GUJRAL PUNJAB TECHNICAL UNIVERSITY, KAPURTHALA
MAIN CAMPUS
Department of Electrical Engineering

CERTIFICATE

This is to certify that the Project-I entitled "Single Axis Solar Tracker System" is the research work carried by following students as team in session Jan-May 2021(one semester) in partial fulfilment of the requirements of curriculum of B.Tech Electrical Engineering. This project has not been formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

Yamini (1818665)

Ankur (1818651)

Kartikay (1818657)

Priya (1818661)


Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006


Head



26

**I K GUJRAL PUNJAB TECHNICAL UNIVERSITY
MAIN CAMPUS (KAPURTHALA)**



PROJECT REPORT FILE

Gagandeep

SUBMITTED TO:

DR. GAGANDEEP KAUR

(HEAD OF DEPARTMENT EE)

SUBMITTED BY:

ANMOL KALIA (1818652)

PARVEEN KUMAR (1818659)

SURAJ PALIYAL (1818664)

RUHI KUMARI (1818663)

Gagandeep

Head

Department of Electrical Engineering

I K Gujral Punjab Technical University

Jalandhar-144005

B. TECH (EE), 6TH SEMESTER

3RD YEAR

P

92

I.K.GUJRAL PUNJAB TECHNICAL UNIVERSITY, KAPURTHALA
MAIN CAMPUS
Department of Electrical Engineering

CERTIFICATE

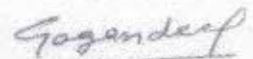
This is to certify that the Project-I entitled "Design and Build of Smart Energy Meter" is the research work carried by following students as team in session Jan-May 2021(one semester) in partial fulfilment of the requirements of curriculum of B.Tech Electrical Engineering. This project has not been formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

Anmol Kalia (1818652)


Parveen Kumar (1818659)

Suraj Paliyal (1818664)

Ruhi Kumari (1818663)



Head



Head

Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006



98

A PROJECT REPORT

ON

Foot step power generation by piezo electric sensors.



SUBMITTED IN PARTIAL FULFILLMENT OF REQUIREMENT OF A
BACHELOR OF TECHNOLOGY IN ELECTRICAL ENGINEERING

2021

SUBMITTED TO:-

Gagandeep

DR.GAGANDEEP KAUR

HEAD OF DEPARTMENT

SUBMITTED BY:-

RANJEET SINGH 1801768

RAHUL KUMAR 1801767

ABHISHEK PROCHA 1801765

SATYAM KUMAR CHOUDHARY 1801769

R

Gagandeep

Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

91

I.K.GUJRAL PUNJAB TECHNICAL UNIVERSITY, KAPURTHALA
MAIN CAMPUS
Department of Electrical Engineering

CERTIFICATE

This is to certify that the Project-I entitled "Foot Step power Generation by Piezo Electric Sensors" is the research work carried by following students as team in session Jan-May 2021(one semester) in partial fulfilment of the requirements of curriculum of B.Tech Electrical Engineering. This project has not been formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

Ranjeet Singh (1801768)

Rahul Kumar (1801767)

Abhishek Procha (1801765)

Satyam Kumar Choudhary (1801769)

Head



Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-141006



LK.GUJRAL PUNJAB TECHNICAL UNIVERSITY, KAPURTHALA
MAIN CAMPUS
Department of Electrical Engineering

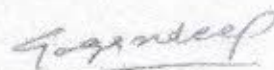
CERTIFICATE

This is to certify that the Project-I entitled "Foot Step power Generation by Piezo Electric Sensors" is the research work carried by following students as team in session Jan-May 2021(one semester) in partial fulfilment of the requirements of curriculum of B.Tech Electrical Engineering. This project has not been formed the basis for the award previously of any degree, diploma, associateship, fellowship or any other similar title.

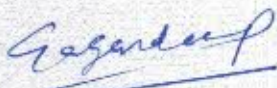
Ranjeet Singh (1801768)

Rahul Kumar (1801767)

Abhishek Procha (1801765)



Head



Head

Department of Electrical Engineering
L.K. Gujral Punjab Technical University
Kapurthala-144006



Department of Electrical Engineering

List of Ph.D Students for Session (2020-21)

Sr No	Name of Students	Roll No
1	Sunny Vaish	2004001
2	Shivam Sharma	2004002
3	Manjit Singh	1304010
4	Sunimerjit Kaur	1304005
5	Kulraj Kaur	1404005
6	Sukhpal	2104001



Head
Department of Electrical Engineering
I.K. Gujral Punjab Technical University
Kapurthala-144006

List of Students B.Tech Electrical Engineering (Session 2017-18)

Sr.No	Roll.no	Name
1	1731869	Archit Sharma
2	1731871	Gaurav Saroya
3	1731873	Gourav Bhardwaj
4	1731874	Khamesh Sharma
5	1731875	Kumari Anshu
6	1731876	Mohammad Rafi
7	1731877	Munish Kumar
8	1731878	Neelmani
9	1731879	Pankaj Kumar
10	1731880	Shishant Sharma
11	1731881	Shivam Chauhan
12	1731883	Sourav Verma
13	1731885	Vishal Kumar
14	1731886	Vivek Bhagat
15	1818666	Abhishek Verma
16	1818667	Amit Kumar
17	1818668	Anshul Kanwar
18	1818669	Baljinder Singh
19	1818670	Gagan Sharma
20	1818671	Paras Sharma
21	1818672	Prince Saklani
22	1731841	Kavita Pathak
23	1731636	Prince
24	1731637	Romandeep Singh

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List of Students B.Tech Electrical Engineering (Session 2018-19)

Sr.no	Roll.no	Name
1	1801765	Abhishek Procha
2	1801767	Rahul Kuamr
3	1801768	Ranjeet Singh
4	1801769	Satyam Kumar Choudhary
5	1801771	Sukhchain Singh
6	1818650	Abhinav Pathania
7	1818651	Ankur Chauhan
8	1818652	Anmol Kalia
9	1818653	Bhanu
10	1818654	Gagandeep
11	1818655	Harkaran
12	1818656	Harshdeep Rai
13	1818657	Kartikay
14	1818658	Manga
15	1818659	Parveen Kumar
16	1818660	Pritish Tuteja
17	1818661	Priya Kumari
18	1818662	Ramandeep Singh
19	1818663	Ruhi Kumari
20	1818664	Suraj Paliyal
21	1818665	Yamini Gupta
22	1916677	Harmanpreet Singh
23	1916678	Iqbal Singh
24	1916679	Lovepreet Singh
25	1916680	Navkirat Singh
26	1916681	Pankaj Kumar Gautam
27	1916682	Suraj Parkash


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List of Students B.Tech Electrical Engineering (Session 2020-21)

Sr. No	Roll No.	Student Name
1	2022631	Abhimanyu thakur
2	2022632	Abhishek Sharma
3	2022633	Adarsh Kumar
4	2022634	Amanpreet Singh Sidhu
5	2022635	Anuj Shukla
6	2022636	Aryan
7	2022637	Aryan Raj
8	2022638	Britender Singh
9	2022639	Chandan Singh
10	2022640	Chiranjeev Pandey
11	2022641	Deepak Gupta
12	2022642	Himanshu Raj
13	2022643	Jaskaran Singh
14	2022644	Jaskaran Singh
15	2022645	Jatinder Singh
16	2022646	Joshua
17	2022647	Kartik
18	2022648	Krishnakant
19	2022649	Manish Sahani
20	2022650	Md Arif Hussain
21	2022651	Parveen Kumar
22	2022652	Ranjan Kumar
23	2022653	Sachin Kumar
24	2022654	Sahil Sharma
25	2022655	Sarbodhan Singh
26	2022656	Shamim Ahmed
27	2022657	Shubham Barti
28	2022658	Simranjit Singh
29	2022659	Sohan Lal
30	2022660	Sukhbir Singh
31	2022661	Sunny Kumar
32	2022662	Vikasdeep Singh Sidhu
33	2022663	Vivek Kumar


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List of Students B.Tech Electrical Engineering (Session 2019-20)

Sr. No	Roll. no	Name
1	1916537	Abhishek Kumar Gupta
2	1916538	Abhishek Yadav
3	1916539	Abhishek Yadav
4	1916540	Adarsh Raj
5	1916541	Aditya Kumar
6	1916542	Ahsaas Kumar
7	1916543	Aishwary Raj
8	1916544	Ansh Kumar
9	1916545	Anurag Chaudhary
10	1916546	Ashish Choudhary
11	1916547	Ashutosh Kumar Pandit
12	1916548	Avinash Kumar
13	1916549	Ayush Gupta
14	1916550	Baljeet Raj
15	1916551	Diwakar Kumar
16	1916552	Gurbax Singh
17	1916553	Gurdeep Magu
18	1916554	Harsh Kumar Singh
19	1916555	Indrasen Yadav
20	1916556	Mehul Raj
21	1916557	Nishan Singh
22	1916559	Parth Saini
23	1916560	Rahul Kumar
24	1916561	Rajneesh Kumari
25	1916562	Rajnish Kumar
26	1916563	Ranvir Singh
27	1916564	Raushan Kumar
28	1916565	Ravi Raj
29	1916566	Ritik Sighania
30	1916568	Sachin kumar
31	1916569	Sanjay kumar
32	1916570	Sanny Kumar

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Sr. No	Roll. no	Name
33	1916571	Shubham Jamwal
34	1916572	Vaibhav Kumar
35	1916573	Vikash Pal
36	1901884	Abhay Kumar
37	1901885	Akash Kumar
38	1901886	Akash Singh
39	1901887	Rabjot Singh
40	1901888	Sachin Kumar
41	2022784	Bhupinder Singh
42	2022785	Davindervir Singh Mann
43	2022788	Sahil Choudhary
44	2022786	Kishan Kumar Mehta
45	2022787	Purujit Chaturvedi
46	2022782	Aman Kumar
47	2022789	Sonu Kumar
48	2022783	Ashish Tripathi

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