

## **DEPARTMENT OF**

 $\overline{J}AN 2021$ 

JUNE 2021

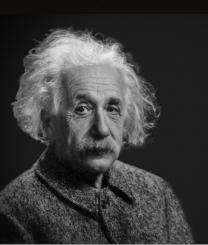
ELECTRICAL AND ELECTRONICS
ENGINEERING





BI-ANNUAL EEE
MAGAZINE





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## SPRING TRONICLES

## SPECIAL GREETINGS

## **MESSAGE FROM CHAIRMAN**

It's pleasure to present my views for the biannual EEE magazine. The Department of Electrical and Electronics Engineering has always been one of the most active and happening Departments of our Institute and has brought us lot of pride over the past. The Institute as a whole has been undergoing very drastic reforms in terms of curriculum updation and course structure.

The EEE Department has taken up these readily which we hope will work for the benefit of the students. The new course plans have been applied to some of the senior years in UG apart from the first years as well, and we look forward to the feedback on the same to ensure we're moving on the right path.



Dr. MOHAN MANGNANI

It is always good to see the students bring out their creative and hidden talents in any form and this would be a perfect platform for the students of the Department. This would also serve as an apt magazine for the sharing of technical articles by faculty and students from their respective areas of research. All the very best.

## MESSAGE FROM PRINCIPAL

At NHCE, We understand that the need to teach beyond curriculum so as to make our students 'Industry Ready'. Recent observations made by many stalwarts in the industry indicate the fact that a majority of Engineering Graduates out of colleges are not employable. NHCE has always been in th forefront in ensuring that students are employable.

It gives me immense pleasure to pen a few words as prologue to the in-house magazine of the EEE department, Spring Tronicles. The issue is designed to present the events that have occurred as well as technical write-ups which makes the issue resourceful and informative. I congratulate all the contributors and also editorial board for bringing out such a nice issue. Happy Reading.



Dr. MANJUNATHA

# SPRINGTRONICLES

## MESSAGE FROM THE HEAD OF DEPARTMENT



Dr. M MAHESH

It's pleasure to present my views for the biannual EEE magazine for Spring Tronicles 2022. The Department of Electrical and Electronics Engineering has always been one of the most active and happening Departments of our Institute and has brought us lot of pride over the past. The Institute as a whole has been undergoing very drastic reforms in terms of

curriculum updation and course structure

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the right path. It is always good to see the students bring out their creative and hidden talents in any form and this would be a perfect platform for the students of the Department. This would also serve as an apt magazine for the sharing of technical articles by faculty and students from their respective areas of research. All the very best.

## MESSAGE FROM FACULTY ADVISOR

On Behalf of the Team, I am delighted on the launch of the second issue of "Spring Tronicles", on the eve of currents. The Clubs of EEE Department has played its instrumental role, this academic year as well, alike the previous years, through the year long activities of various workshops and social events.

The EEE Magazine has been experiencing a paradigm growth in the recent past and is now taking a new shape as a technical magazine adding a new flavour. I appreciate this initiative and wish whole heartedly that Spring

Tronicles accomplish greater heights and wider reach. With no doubt I aspire the EEE students to take this association and the magazine to an elevated horizon.

Wishing you a very great and successful venture ahead.



Dr. S SUJITHA



Mr.VINOD KUMAR S

## MESSAGE FROM FACULTY ADVISOR

Nurturing creativity and inspiring innovation are two of the key elements of a successful education, and a college magazine is the perfect amalgamation of both. It harnesses the creative energies of the academic community, and distils the essence of their inspired imagination in the most brilliant way possible. Hence, I am highly privileged to know that New Horizon college of Engineering, EEE department magazine "Spring Tronicles" is ready for publication.

"Spring Tronicles" provides an intersection of great challenge and great opportunity for the students to review their efforts and to analyze their achievements in all areas of skill development. Technology is evolving at a dizzying rate and our classrooms may not be designed to keep pace with it.

I congratulate the team of students for their tireless efforts that have come to fruition in the form of this magazine. I wish it all success and hope that this tradition that has been set by the current students will be carried through by the following generation of students to come.

## **EDITORIAL TEAM**



Dr. M MAHESH



Dr.S SUJITHA



Mr.VINOD KUMAR S



Ms.W Y JHANSIPRIYA



Mr.YASHVANTHA P



Ms. HARSHITHA. R



Mr. BHARATH



Ms.INFANCIA PRAGNA



Mr. DONY SNEHIT



Ms.HARITHA





Ms. JHANSI PRIYA



Ms.HARSHITHA K

## ABOUT DEPARTMENT

Electrical and Electronics Engineering is a continuously evolving branch of engineering. As technology has advanced, so have the challenge facing the modern engineer. EEE is a subject that naturally partners with other disciplines with whole new engineering avenues. From the very inception of the college in 2001, the Department of EEE offers four year full-time B.E program under three variants Global, Professional and Executive, affiliated to VTU with the intake of 60 students, now boast of 120 students per year. The Department is equipped with all the required laboratories, infrastructure and class rooms.

The B.E Degree program is designed to achieve a balance between depth of knowledge acquired through specialization and breadth of knowledge gained through exploration. The undergraduate degree courses offered by department provide a comprehensive foundation in the core topics of EEE coupled with an area of specialization relevant to emerging engineering challenges. The curriculum has been designed to create professional electrical and electronics engineers, who can serve the fields of core Electrical Engineering, information and communication systems, and other related fields.

## SPRING TRONICLES

## MISSION AND VISION

To evolve into centre of excellence in Electrical and Electronics Engineering for bringing out contemporary engineers, innovators, researchers, and Entrepreneurs for serving nation and society.

- To provide suitable forums to enhance the teaching learning, research, development activities.
- Framing and continuously updating the curriculum to bridge the gap between industry and academia in the contemporary world and serve society.
- To inculcate awareness and responsibility towards the environment and ethical values.



## PROGRAM OUTCOMES (POS)

**Electrical and Electronics Engineering Graduates will be able to:** 

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change

## PROGRAM SPECIFIC OUTCOMES (PSO's)

**PSO 1:** Graduates will be able to solve real life problems of power system and power Electronics using MiPower, PSPICE and MATLAB software tools and hardware.

PSO 2: Graduates will be able to develop and support systems based on Renewable and sustainable Energy sources.



## SEMINAR & WORKSHOP



Date: 18/01/2021 to 23/01/2021

The Department of Electrical and Electronics Engineering organized AICTE Sponsored STTP Phase-3 for six days.

The IoT devices in renewable energy management are used to monitor and control manually or automatically to manipulate the electricity production The objectives achieved in the STTP are

- the knowledge on IoT based renewable energy management and onthe Smart Grid automation using IoT.
- The latest technology on the power demand and management using IoT.
- The research tools used for the implementation of recent trends on renewable energy management and utilization, which inspired the participates to do research on the IoT focusing on the Electricity grids.

The faculty members of Engineering Institutions, Universities, Research Scholars, Industry persons attended online STTP sessions at Morning 10AM to 12PM and Afternoon Session 2PM to 4PM via Google meet app.

The Organizers Mr.Satishkumar D, Dr.Prabhakaran and Mrs. Rashmi N are successful in conducting this STTP with positive feedback and all the participants were provided with the E-certificates. Congratulation to entire team.







DATE:25th to 29th of January 2021

Department of EEE organized 5-Days Research Conclave on Power Electronics using from 25th to 29th of January 2021, in two Session from 10 AM to 12 PM & 2 PM to 4PM for Research Scholars and faculty of all the engineering colleges.

This Research Conclave is to kindle the research minds towards innovation. It helps the design engineer to have a better understanding of the circuit operation and possible problems can be discovered in the early phase of the design process. This research Conclave also intends to provide an opportunity for young researchers in the field of Electrical Engineering for adoption and enhancement of recent advancements and Research in Power electronics.

Congratulations to Organizing team Dr.R.Mohan Das , Mr.Vinodkumar S, Mr.S.Inbasakaran faculty of EEE.







The Department of Electrical and Electronics Engineering organized AICTE Sponsored STTP – Phase-3 for six days, from 1st – 6th February 2021.

Demand side management (DSM) in smart grid is a kind of management activity which can effectively promote and mobilize the enthusiasm of users to change or transfer the power consumption according to the dynamic prices (e.g., real-time pricing, time of use pricing, and inclining block rates). It is a hot topic for how to mobilize the enthusiasm of users to participate in their energy management. With improving the technology of renewable energy sources (RES) in recent years, many users are equipped with rooftop solar panels or small wind turbines.

Scheduling the RES and ESS, power grids are becoming more secure and efficient in the electricity market

The objectives of STTP Phase -3 are.

- The knowledge on DSM based renewable energy management and on the Smart Grid automation using IoT.
- The latest technology on the power demand and management using IoT.
- The research tools used for the implementation of recent trends on renewable energy management and utilization, which inspired the participates to do research on the IoT focusing on the Electricity grids.

The faculty members of Engineering Institutions, Universities, Research Scholars, Industry persons attended online STTP sessions at Morning 10AM to 12PM and Afternoon Session 2PM to 4PM via Google meet app.

The Organizers Dr. Singaravelan A, Mr.Muni Prakash T and Mr. Mohan B S are successful in conducting this STTP with positive feedback.



# SPRINGTRONICLES



Date: 01-03-2021 To 05-03-2021

Time: :10:00 to 1:00

The program was inaugurated by Dr. Manjunath, Principal, NHCE, Dr. Mahesh M Codirector of IFCEEAE, and HoD EEE highlighted the importance and over view of the program.

The in-house faculty development program was intended to train the selected faculty from the Engineering departments such as Automobile, Civil, Electrical and Electronics, Electronics and Communication and Mechanical on Industrial Automation and Building Automation.

The program was scheduled in such a way that the basics and programming of the PLC was taught in first three days and the last two days were reserved for advanced techniques in automation such as Supervisory Control and Data Acquisition, Human Machine Interfacing, Building automation and Fire alarm systems.

This five days program gave an insights on importance and need of industrial automation and Building automation.

The program was successfully completed by validictory ceremony on 5th march 2021, by distributing participation certificates to the partcipants by Dr. Ganesh Prasad, Dean and HoD Mechanical Engineering and Dr. Sanjeev Sharma, HoD Electronics and Communication Engineering.

The five days Faculty Development Program helped the participants to know the importance of Industrial and Building Automation and motivated them to involved in the R&D initiatives in the same field.







**Department: Electrical and Electronics Engineering** 

Date From: 06/05/2021 To: 06/05/2021

Time From: 02:00 PM To: 04:00 PM (IST)

## **Brief Description:**

(4-5 Lines Max) Department of Electrical and Electronics Engineering, New Horizon College of Engineering – Bengaluru. Organizing the National Webinar on: "IEEE Awareness Talk" in association with IEEE Power Electronics Society Student Branch Chapter.

**Topics to be Covered:** 

What is IEEE

Value of IEEE membership and its benefits

**IEEE Volunteering Opportunities** 

**IEEE Travel Grants** 

**IEEE Societies offering grants** 

**IEEE Student Project grants, etc** 

Speaker:

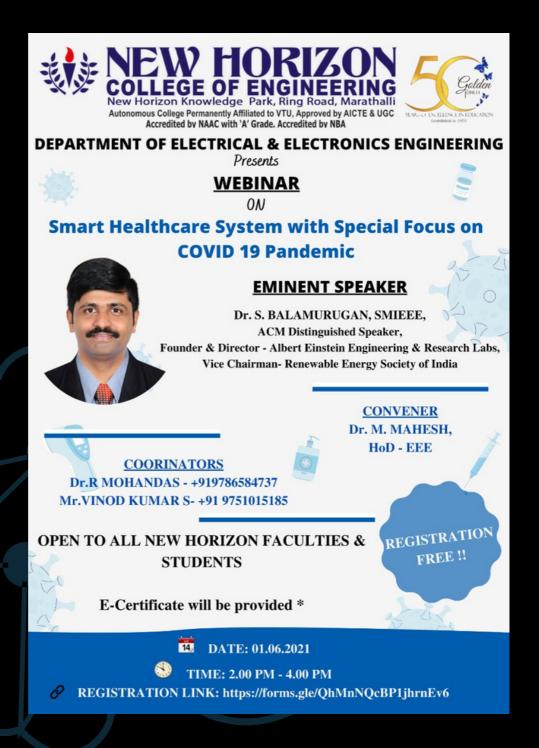
Dr. Rajesh M. Pindoriya

**Project Engineer** 

**Indian Institute of Technology, Mandi** 







Date: 01.06.2021 Time: 14:00 – 16:00

Department of EEE organized "Smart Health Care System with Special Focus on Covid- 19 Pandemic" on 01.06.2021.

The Expert Talk was given by Dr.S. Balamurugan, ACM, Distinguished speaker. The webinar Event was an Eye opening of Research topics that can be deployed in the current pandemic situation how to deploy technology in devises like Sanitizer dispenser, Mask dispenser, Toilet, Washing our hands, social distancing. Smart Methods of using above appliances in the Research methodology were delivered. About 80 participants registered for the Event and participated in the Event.







Date: 31.05.2021 To 31.05.2021

Time: 18.00 To 19:30

The Department of Electrical and Electronics Engineering, New Horizon College of Engineering, Bengaluru organised the Webinar on "Power Electronics Converters for Smart Microgrid" on 31st May 2021, Monday from 06.00 PM to 07.30 PM in association with IEEE PELS Student Branch Chapter of NHCE. The objective of the programme is to bring the researchers and academic experts from reputed institutes of our country to a collective gathering for exchanging and sharing the knowledge about the recent developments and research challenges Power Electronics Converters for Smart Microgrid.

The entire session is handled by a resource person Dr. M. Kowsalya, Professor, Department of Energy and Power Electronics, School of Electrical Engineering, Vellore Institute of Technology Vellore, Tami Nadu, India and delivered a speech on a Power Electronics Converters for Smart Microgrid available with a wide range of industrial applications. She also mentioned that types of converters applicable to smart grid technology. The entire session is very informative and enthusiastic manner in the area of power electronics industry. The eminent expert from the VIT Deemed-to-be-University delivered the lecture and her talk has been very well received by the 103 participants.



## IEEE PELS NHCE

## **Event Organised Details**

Sl. No	Name of the Event	Date	Resource Person	No. of Participants	Event Link
1.	Webinar on "IEEE Awareness Talk"	6th May 2021 Thursday 02.00 PM – 04.00 PM	Dr. Rajesh M. Pindoriya Project Engineer, Indian Institute of Technology, Mandi	Faculty: 40 Research Scholar: 10 Students:117 Industry: 3 Total No. of Participants: 170	https://newhorizonindia.edu/nhengineering/department-of- electrical-and-electronics-engineering/national-webinar-on-ieee- awareness-talk/ https://events.vtools.ieee.org/m/274726
2.	Webinar on "Power Electronics Converters for Smart Microgrid"	31* May 2021 Monday 06.00 PM – 07.30 PM	Dr. M. Kowsalya Professor Department of Energy and Power Electronics School of Electrical Engineering Vellore Institute of Technology Vellore - 632014, Tamil Nadu, India	Faculty: 33 Research Scholar: 14 Students:136 Industry: 2 Total No. of Participants: 185	https://newhorizonindia.edu/nhengineering/department-of- electrical-and-electronics-engineering/power-electronics- converters-for-smart-microgrid/ https://events.vtools.ieee.org/m/274716
3.	International Webinar on "Controlling Megawatts with Power Electronics"	11th June 2021 Friday 05.00 PM - 06.30 PM	<b>Dr. Tobias Geyer</b> ABB Medium - Voltage Drives, Switzerland	Faculty: 26 Research Scholar: 5 Students:153 Industry: 1 Total No. of Participants: 185	https://newhorizonindia.edu/nhengineering/department-of- electrical-and-electronics-engineering/international-webinar-on- controlling-megawatts-with-power-electronics/ https://events.vtools.ieee.org/m/274712

4.	Webinar on "Stress Management and Meditation"	5th June 2021 Saturday 10.30 AM – 11.30 AM	Ms. B.K.Chaya, Raj Yoga Teacher, Brahma Kumzris, Bangalore	Students: 19 Total No. of Participants: 19	https://newhorizonindia.edu/nhengineering/department-of- electrical-and-electronics-engineering/webinar-on-stress- management-and-meditation/ https://events.vtools.ieee.org/m/274721
5.	IEEE PELS NHCE SBC Inaugural Ceremony	15th June 2021 Tuesday 10.00 AM- 11.00 AM	Mr. Vishal Anand A G Chair, IEEE PELS Bangalore Chapter & Principal Engineer Bloom Energy (I) Pvt Ltd, Bengaluru, India	Faculty: 30 Research Scholar: 1 Students:66 Industry: 2 Total No. of Participants: 99	https://newhorizonindia.edu/nhengineering/department-of- electrical-and-electronics-engineering/eee-department-organized- ieee-pels-nhce-student-branch-chapter-inaugural-ceremony/ https://events.vtools.ieee.org/m/274714
6.	Webinar on "Idea to product: A research Pathway"	19th June 2021 Saturday 04.00 PM - 05.00 PM	Mr. Ramneek Kalra IEEE Impact Creator & Author at IEEE e-Books	Students: 68  Total No. of Participants: 68	https://newhorizonindia.edu/nhengineering/department-of- electrical-and-electronics-engineering/department-of-eee- organized-webinar-on-idea-to-product-a-research-pathway/ https://events.vtools.ieee.org/m/275407
7.	Webinar on "Students' Perception and Preference for Online Education in India During COVID -19 Pandemic"	26th June 2021 Saturday 04.00 PM - 05.00 PM	Dr. Muthuprasad T Scientist-B (Forest Economics) Division of Forestry Statistics Directorate of Administration ICFRE (Head Quarters) Dehradun	Faculties: 102 Total No. of Participants: 102	https://newhorizonindia.edu/nhengineering/department-of- electrical-and-electronics-engineering/department-of-eee- organized-students-perception-and-preference-for-online- education-in-india-during-covid-19-pandemic/ https://events.vtools.ieee.org/m/275535
8.	Webinar on "Real Time Implementation of Switch Mode DC Converter"	30th June 2021 Wednesday 05.00 PM – 06.30 PM	Dr. R. Saravanakumar Professor Department of Control and Automation School of Electrical Engineering Vellore Institute of Technology Vellore - 632014, Tamil Nadu, India	Faculty: 23 Students: 140 Total No. of Participants: 163	https://newhorizonindia.edu/nhengineering/department-of- electrical-and-electronics-engineering/webinar-on-real-time- implementation-of-switch-mode-dc-converter/ https://events.vtools.ieee.org/m/274719

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## CLUB ACTIVITIES

## GREEN ENERGY CLUB

CLEANLINESS DRIVE

The main objective was to keep the Jakkur Lake surroundings creamed and to sustain the plants and trees by mulching and watering them. And safe disposal of Bio masses around the lake. of volunteering and helping along with NGO, "Jala Poshan" and Green Warriors Club,

The cleanliness drive helped us gain knowledge on many aspects of plants and how much their sustainability matters to every individual.

Date: 4th March 2021.

Time: 7:00 AM to 10:00 AM

Venue: Jakkur Lake, Jakkur, Agrahara, Bangalore-560064





## SPENING PRINCES

## **TERRANOVA**



The primary objective of the ideathon was to bring out the creative, inquisitive, and innovative side of the participants who bring out their solutions to the world's biggest problem and thrive to make a change in this world.

This event encouraged participants to bring out their vast and varied views on the problem statement, giving them an opportunity to present their creative and innovative side in a competitive manner

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## **ACHIEVEMENTS**

Sumit Bhawal, final year student from the EEE department has been selected for an international placement through the dept of Z HRD for 2020-21

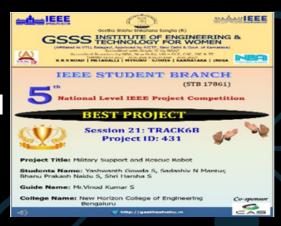
Sumit Bhawal, a final year student from the EEE department has been selected for an international placement through the dept of HRD for the 2020-21 placement session, and the placement team will have a very productive and satisfying training model.



The curriculum at New Horizon College of Engineering is designed to not only provide students with extremely strong technical knowledge but to also hone their personal development so that they become well-rounded individuals who are an asset to any organization that they are a part of. Dept of Electrical &Electronics Engineering opportunities to learn not just through well-designed classroom and laboratory activities but also through active participation in research and industrial collaboration projects, student societies and competitions, and social service activities, and through exposure to entrepreneurship from an early stage And active mentoring from faculty members ours exposed to the latest technological developments in their field, enabling them to achieve their full potential.

## **ACHIEVEMENTS**

GSSS INSTITUTE OF ENGINEERING & TECHNOLOGY FOR WOMEN, Mysore, Organised "5th National Level IEEE Project Competition" (Online Mode)



Date: 26th June 2021 Time: 9:00 AM to 4:30 PM

GSSS Institute of Engineering and Technology for Women, Mysuru IEEE Student Branch in association with IEEE Bangalore Section and IEEE Mysore Sub Section organizing It is Co-Sponsored by IEEE Circuits & Systems Society Bangalore Chapter." Fifth IEEE National Level Project Competition-2021 (Virtual)" on 26 June 2021.



## PATENTS FILED

31.	A System and Method for Automatic Street Lamp Lighting and	India	Dr. B. Gunapriya et al (11)	EEE		
	Energy Saving Control Application No. 201941039625 A Dt 30/09/2019	42/2019 Dt 18/10/2019	Filed by her with Others	2019	2019-20	Published
32.	Application No. 201941039625 A Dt 30/09/2019  Non-Isolated Bi-directional converters with Coupled Inductor	Dt 18/10/2019			$\rightarrow$	
	(NBDCCI) for Hybrid Electric Vehicle (HEV) Applications.	Europe WO/2020161728	Krishnamurthy	EEE	2020-21	Published
	Application No. PCT/IN2019/050392 Dt. 16/05/2019	13/08/2020	Vinoth Kumar et.al (11)	2020	2020	r unione
33.	An Efficient Air Conditioner with Self Sanitizing Techniques	Australia				
	Australian Application Number: 2020102996	AOJoP	Krishnamurthy	EEE	2020-21	Published &
	Dt. 24/10/2020. Australian Govt- Australian Official Journal of Patents – Vol. 34, No. 46, November 2020	Vol. 34, No. 46, 19/11/2020	Vinoth Kumar et.al (13)	2020		Granted
34.	Detection of Rotor Faults on Asynchronous Motor Using Motor		1			
	Current Signature Analysis and Instantaneous Power Analysis	India	Krishnamurthy Vinoth Kumar	EEE	2020-21	Published
	Method. Indian Patent No. 43068/DEL/2020. Application No.202011043068 A Dt. 03/10/2020	43/2020 24/10/2020	Dr. B. Gunapriya et.al (15)	2020		
35.	An Improved Brain Emotional Learning-Based Intelligent	India	1			
	Controller (BELBIC) Controller for PMBLDC Motor Drives using	No. 32/2020	Dr. B. Gunapriya et.al (16)	EEE 2020	2020-21	Published
ı	Emotional Learning Techniques Application No.202041030788 Dt. 20/07/2020	Dt 07/08/2020		2020		
36.	Solar Powered Electric Tricycle for Physically Challenged	India		EEE		
	Persons Application No.202041049220 Dt. 11/11/2020	47/2020 20/11/2020	Dr. B. Gunapriya et.al (15)	2020	2020-21	Published
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ıl J	l I	1	Dr. Gunapriya B, Dr. Vinoth Kumar.K,			
ıl )	202041056563 E-2/3838/2020-CHE	India	Dr. Mahesh. M	EEE	2020-21	Published
ıl )	Battery Monitoring & Management System for Electric Vehicle	53/2021 31/12/2021	Ms. Deepa V. Bolanavar Mr. Satish Kumar D	2020	2020-2-	Publishe.
	<i></i>	(	Mr. Satish Kumar D Ms. Rashmi N			<u> </u>
38.	202041056571 E-2/3846/2020-CHE	India		EEE		
	A Collaborative Robot to Serve Patients and to Collect Infectious Wastage at the Isolation Ward	53/2021 31/12/2021	Dr. A. Singaravelan	2020	2020-21	Published
39.	202141000144 E-2/19/2021-CHE	1	Dr. Vinoth Kumar K			
ıl 1	Monitoring of Fault Diagnosis in Asynchronous Motor Using	India	Mr. Satish Kumar D	EEE	2020-21	Published
	Transform Analysis	53/2021 31/12/2021	Dr. Mahesh M Dr. Gunapriya B	2021		
40.	202141000145 E-2/20/2021-CHE		Dr. Vinoth Kumar K			
ıl 1	Monitoring of Artificial Neural Network Based Fault Identification in a Three Phase Induction Motor Using aTmega-	India 53/2021 31/12/2021	Dr. Mahesh M	EEE 2021	2020-21	Published
	32(A)	53/2021 51/12/1011	Dr. Gunapriya B	2021		L!
41.	202141000146 E-2/21/2021-CHE Security Aspects of	India 53/2021 31/12/2021	Dr. Vinoth Kumar K	EEE 2021	2020-21	Published
42.	Asynchronous Motor Using Mobile Communication Analysis Testing Method of Asynchronous Motor Using Multiresolution	53/2021 31/12/2021	Dr. Mahesh M Dr. Vinoth Kumar K	2021		
	Analysis	India 53/2021 31/12/2021	Dr. Mahesh M	EEE 2021	2020-21	Published
43	E-2/2087/2021-CHE 202141029340 Dt. 30/06/2021	53/2021 51/12/2022	Dr. Gunapriya B	2021	$\longrightarrow$	<u> </u>
43.	Home Energy Management Device for Demand Response Program to Reduce Consumption Cost and Peak Demand	India	Dr. A. Singaravelan	EEE	2020-21	Published
	E-2/2088/2021-CHE 202141029341 Dt. 30/06/2021	53/2021 31/12/2021	Dr. M Mahesh	2021		
44.	Real Time Monitoring of Bearing Faults in Wind Turbine	India	Dr. Vinoth Kumar K Dr. Mahesh M	EEE	2020-21	Published
	E-2/1982/2021-CHE 202141027654 Dt. 21/06/2021	53/2021 31/12/2021	Dr. Gunapriya B	2021	2020-21	Published
45.	A method for rainfall prediction using Artificial Neural Networks	India 01/2021 Dated		EEE	2220.21	d
	Application No. 202011056465 A Dt. 25/12/2020	01/2021 Dated 01/01/2021	Dr. B. Gunapriya et.al (15)	2021	2020-21	Published
- 22						
46.	A smart agriculture monitoring system using Internet of Things	India 03/2021 Dated	Dr. B. Gunapriya et.al (16)	EEE	2020-21	Published
	Application No. 202011056466 A Dt. 25/12/2020	15/01/2021		2021		
47.	Novel system, method, design, development, control and	India		EEE	2220.24	
	implementation of multilevel inverter connect E-2/2390/2021-CHE 202141045105 Dt. 05/10/2021		Dr. Sujitha S	2021	2020-21	Filed
48.	Railway Track Safety Monitoring and control system using IOT	India	Dr. R. Mohan Das et al (14)	EEE	2020-21	Published
	Application No. 202041048829 A Dt 09/11/2020	47/2020	Dirin menangan di	2020		
50.	Novel system, method of Intelligent agriculture field monitoring	India		EEE		
1 7	system based on IOT Technology	50/2021 Dated 10/12/2021	Dr. Sujitha S	2021	2021-22	Published
	A P. STATEMENT PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERT	10/12/2021		-	$\vdash$	$\vdash$
51.	E-2/3391/2021-CHE 202141045106 Dt. 05/10/2021  Novel system, method, design, development of military safety	tadia	1	4	4	1
51.	Novel system, method, design, development of military safety and surveillance robot	India 50/2021 Dated	Dr. Sujitha S	EEE	2021-22	Published
51.	Novel system, method, design, development of military safety		Dr. Sujitha S	EEE 2021	2021-22	Published
51.	Novel system, method, design, development of military safety and surveillance robot E-2/3392/2021-CHE 202141045107 Dt. 05/10/2021 Wireless Energy Generation/Extraction from Rotating Drum	50/2021 Dated 10/12/2021 India				
	Novel system, method, design, development of military safety and surveillance robot E-2/3392/2021-CHE 202141045107 Dt. 05/10/2021	50/2021 Dated 10/12/2021	Dr. Sujitha S Dr. Mahesh M	2021	2021-22	Published  Published
	Novel system, method, design, development of military safety and surveillance robot  E-2/3392/2021-CHE 202141045107 Dt. 05/10/2021  Wireless Energy Generation/Extraction from Rotating Drum Suitable for Low Power Applications  E-2/2085/2021-CHE 202141029338 Dt. 30/06/2021	50/2021 Dated 10/12/2021 India 50/2021 Dated 10/12/2021 India	Dr. Mahesh M Dr. Gunapriya B	2021 EEE 2021	2021-22	Published
52.	Novel system, method, design, development of military safety and surveillance robot E-2/3392/2021-CHE 202141045107 Dt. 05/10/2021 Wireless Energy Generation/Extraction from Rotating Drum Suitable for Low Power Applications	50/2021 Dated 10/12/2021 India 50/2021 Dated 10/12/2021	Dr. Mahesh M	2021 EEE		

## PAPER PUBLICATIONS

Faculty Name	Coauthor fro NHCE	m	Paper Title	Year	Journal Title		Volume	Yolume Issue			Page start	Page end	Source (Scopus / VoS)	Remarks (Q1 / Q2 / Q3 / Q4)	Publication Type
Dr. Aron qorojan Y	-	Recurrent netw stability asse	2021		Applied Energy	302	11752	4	-	1	21	Scopus & WoS	Q1	Journal	
Dr. Aron qorojan Y	-		nd classification of multiple power quality Microgrid network using probabilistic based intelligent classifier	2021		Sustainable Energy Technologies and Assessments	47	47 101470			1	13	Scopus & WoS	Q1	Journal
Dr. Aron qorojan V		and classific	proach of classification model for detection ation of power quality disturbances in PV integrated microgrid network	2021		Applied Soft Computing	106	10729	4	-	1	16	Scopus & WoS	Q1	Journal
Dr. Prabhakaran N			d design of fuzzy-based manoeuvring id-vehicle collision avoidance system	2021	Jo	ournal of Ambient Intelligence and Humanized Computing	12	10			9909	9922	Scopus & VoS	Q1	Journal
Dr. Prabhakaran N		Novel Collisi for Midveh	ion Detection and Avoidance System iicle Using Offset-Based Curvilinear Motion	2021	W	ireless Personal Communications	119	3			1	22	Scopus & WoS	Q3	Journal
Dr. Vinoth Kumar K			usion detection system in latest DFA on methods for deep packet scruting	2021	Des	sign, Applications, and Maintenance of Cyber-Physical Systems		[ . [			219	243	Scopus		Book Chapter
Dr. Vinoth Kumar K		A Review on Triboelectric Nanogenerators (TENGs) using Internet of Things		2021		2021 International Conference on ensics, Analytics, Big Data, Security (FABS)			·   ·		1	5	Scopus		Conference
Dr. Vinoth Kumar K			on of Smart Electric Vehicle Charging ren Using Experimental Investigation	2021		2021 2nd Global Conference for dvancement in Technology, GCAT 2021					1	5	Scopus		Conference
Dr. Vinoth Kumar K	Dr. Gunapriya E		smart electric vehicle charging station driven by RE technology	2021		2021 IEEE Mysore Sub Section ernational Conference, MysuruCon 2021					70	73	Scopus		Conference
Mr. Muni Prakash T		Controller De	esign For Detection of Various Power Thefts	2021		EEE International Conference on novations in Power and Advanced Computing Technologies					1	6	Scopus		Conference
		Dr. Gunapriya B	Application of Two-Phase Simplex Method Efficient Home Energy Management System Demand and Consumer Consumption	to Reduce Peak	2021	IEEE Access		э			6359	1 63601	Scopus & WoS	Q1	Journal
Sr.Assistant Professor	55810671600	Dr. Gunapriya B	An Overview and Advancement of Electric Saving Methods: A Review		2021	Lecture Notes in Electrical Engine	ering	700		1	945	958	Scopus		Conference
		Dr. Gunapriya B	Design and Analysis of a Higher Order F Employing Pspice Medelling		2021	Lecture Notes in Electrical Engine	ering	700		1	3185	3196	Scopus	-	Conference
		Dr. Mahesh M, Dr. Gunapriya B	PLC-Based Fire Accident Prevention	n System	2021	Lecture Notes in Electrical Engine	ering	700		1	1005	1010	Scopus	-	Conference

Dr. Tineth Kumer K	Azzucieto Professor	7402675817	Dr. Sujitha S	Execution of smort alectric vahicle charging station driven by RE technology wing soft computing approach	2021	08.02.2022	IEEE International Conference on Innovations in Power and Advanced Computing Technologies	•		1	5	Scapur	Conference
				A Reviewan Tribaelectric Nenagenerators (TEMOs) wing Internet of Things	2021	09.02.2022	2021International Conference on Ferenzier, Analytics, Big Data, Security (FABS)	-		1	5	Scapur	Conference
			Dr. Gunapriya B	Exocution of smort electric vehicle chargings totion driven by RE technology	2021	22.12.2021	2021IEEE Myzero Sub Soction International Conference, Myzuru Con 2021			70	73	Scapur	Conference
			-	Antificial Intelligence-Bared Energy Management and Real Time Optimization in Electric and Hybrid Electric Vehicles	2022	02.12.2021	EAI/Springer Innovation in Communication and Computing	432		219	242	Scapur	Book Chapter
				Implementation of Smart Electric Vehicle Charging Station Driven Uring Experimental Investigation	2021	12:11:2021	20212nd Global Conference for Advancement in Technology, GCAT 2021			1	5	Scapur	Conference
				Network intrurien detectionsystem in letest DFA compression methods for deep pecketscruting	2021	11.08.2021	Dozian, Applications, and Maintenance of Cyber Physical Systems			219	243	Scapu	Back Chapter



## **PLACEMENTS**

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Suprovo Banerjee	1NH16EE749	EEE	Tudip-Ninja
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Sumit Bhawal	1NH17EE753	EEE	Tudip-Ninja
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Sindhu R	1NH17EE053	EEE	NTT Data
Prachi Anil Pandit	1NH17EE732	EEE	NTT Data

# SPRING T RONIELES

## **CAREER OPTIONS**

## **MASTER OF TECHNOLOGY**



Master of Technology popularly known as M.Tech is the most sought-after higher studies option after B.Tech in India. If you want to pursue deeper knowledge in a particular domain/specialization then M.Tech is a great option. Graduate Aptitude Test in Engineering or GATE is the entrance exam for which B.Tech graduates must appear for, if they wish to pursue M.Tech from India's prestigious engineering institutes.

Various private universities offer other entrance exams as well, however, GATE scores are valid across all public and private universities. The test consists of Subject related Questions(70%), Engineering Mathematics(15%) and Aptitude(15%).

## **Entrance Exam- GATE**

Course Fee- The tuition fee for the M.Tech course ranges between INR 30K to 3L per annum.

Average Salary- The average salary for M.Tech graduates is INR 8 LPA. The salary varies depending upon the role, field, and specialization.

Popular Employment Roles- Senior Software Engineer, Development Engineer, Construction Manager, Project Manager, Aerospace Engineer, Software Developer, Machinery Engineer, Senior Electronics Engineer, Maintenance Manager

Top Institutes- IITs, NITs, ICT Mumbai, VIT, BITS Pilani, SRM University, Indian Institute of Space Science & Technology, IISC Bengaluru

Future Prospects- If you still wish to acquire more knowledge after M.Tech degree, then you can continue to pursue a PhD and venture into the field of research

Pros: After M-Tech one can get into a good core company. The salary is much higher than what is provided to B-Tech graduates

Cons: There are companies which consider only B-Tech and pay accordingly.



## **MASTER OF SCIENCE (MS)**

Students who wish to pursue a master's degree in Engineering after B.Tech from abroad can go for the Master of Science (MS) degree. Pursuing masters in engineering from abroad is the most popular choice among B.Tech graduates.



The facilities and infrastructure offered by foreign universities is topnotch and the best in the world. The experience and exposure of studying abroad gives students the chance of global job opportunities. However, the students must fulfil the strict eligibility criteria and pass the entrance examination for admission in MS at foreign universities. The most popular entrance exam for admission in MS abroad is GRE (Graduate Record Examination).

Apart from GRE, there are other exams as well like IELTS and TOEFL. The choice of exam depends upon which country you are applying to.

MS from abroad surely comes with amazing benefits, however, it is important to carefully select the right program and right university since it is a big investment and a life changing irreversible decision.

ONGC, HCL, ISRO, BAARC, BHEL, GlaxoSmithKline, Cipla.

Job Profiles: Research Scientist, Junior Research Fellow, Mathematician, Food & Drug Inspector, Food & Drug Inspector

Popular Exams: CIT Integrated MSc CET, GSA, IIT JAM, IISER Entrance Exam, JEST, NEST, OUAT Entrance Exam.

## INDIAN ENGINEERING SERVICES



Indian Engineering Services cater to the technical and managerial functions of the Government of India. It has a huge demand among the engineering.

The exam is conducted by the Union Public Service Commission. The exam has three stages. A candidate must score minimum qualifying marks for advancing in further rounds.

A candidate must be an Indian citizen to be eligible for the IAS exam. The Minimum age of the candidate must be 21 years and a maximum of 30 years of candidates belonging to the general category.

SPRING TRONICLES

## MASTER OF BUSINESS ADMINISTRATION

As a generalist degree, the MBA gives you fundamental management knowledge, meaning you'll get a holistic view of across areas like marketing, business finance. and accounting, all while developing those vital soft skills and leadership skills.



Having "MBA" on your resume will help you stand out to employers, but the true meaning of the MBA goes beyond three letters on a sheet. During an MBA, you'll build your business knowledge, grow your professional network, and boost your career and salary prospects.

For pursuing MBA abroad, students should give GMAT exam. Nowadays, a few Colleges have started accepting GRE scores. GMAT tests analytical, writing, quantitative, verbal and reading skills in written. Along with these exams like TOEFL/IELTS, which test proficiency in English, have to be attempted. TOEFL scores are accepted in U.S.A and those of IELTS are accepted by most European Universities.

Specializations: Finance, Business management, Marketing, Human Resource management, Healthcare Management, Information Technology, Retail Management.

MBA Admissions Criteria: Graduate Management Admission Test (GMAT)

(Average: 720-730 out of 800) Academics (3.5/4.0 GPA and up) Extra-curricular activities

## **CIVIL SERVICES**

If you aspire to serve the nation, then taking the Civil Services Exam is the best option that you can take up after engineering. For this, you will have to clear the UPSC civil services exam. It is considered one of the toughest examinations. Thus, it is recommended that you start preparing for at least a year before applying.



The UPSC offers three engineering optional subjects – civil, mechanical, and electrical engineering. On getting a high rank in the examination, you can get the prestigious positions of IAS, IPS, or IFS. The UPSC Engineering Services selection process is divided into three stages:

Stage-I: Engineering Services (Preliminary/Stage-I) Examination (Objective Type Papers)

Stage-II: Engineering Services (Main/Stage-II) Examination (Conventional Type Papers)

**Stage-III: Personality Test** 

## **DEFENSE FORCES**

A career in defense services is considered one of the most respected and prestigious careers in India. Each year lakhs of aspirants give various entrance examinations in order to get selected in the defense services. There are a number of ways through which the aspirants can join the Indian Armed Forces.



One can apply for the armed forces. Prior to that one must ensure that he/she meets all physical requirements. The 4 ways of applying for the army are CDS (Combined Defense Services) examination, TGC (Technical Graduate course) which is meant exclusively for male engineering graduates, SSC (Short service commission) and UES (University Entry Scheme). SSC is a boon for those who want serve temporarily. UES is for B-Tech graduates and has provisional entries for final and pre- final years.

For joining the Navy, CDS and SSC are the major examinations. The questions in these examinations are on English, General knowledge and Mathematics.

## **○ PARENTS TESTIMONIALS**

Mr. Puttarudraiah C V

New Horizon College of Engineering has encouraged my son with accomplishing numerous things as well as supporting him with beating many obstacles in life. I am exceptionally thankful to the educators, who have upheld and given him all an opportunity to do well in his scholastics. It is a result of their direction that he has had the option to do so well. I'm exceptionally content with his performance. Thanks to the Head of the Department and strong resources at the Department of Electrical and Electronics Engineering who not just gave my child a stage to investigate his inclinations and side interests, yet permitted him to turn into a decent understudy in general. Finally, thank you for making my son who he is.

New Horizon college of Engineering has helped my son to achieve many things as well as helping him to overcome many hurdles in life. I am very grateful to the teachers, who have supported and inspired him all the time to do well in his academics. It is because of their guidance that he has been able to do so well. I am very happy with his performance. Thanks to the HoD and supportive faculties at the EEE department who not only gave my son a platform to explore his interests and hobbies but allowed him to become a good student overall.



Mr. <mark>B</mark>asudev Biswal



I am happy with the overall performance of my daughter. Response from the college regarding the messages about the attendance reached us well. Checking the performance of our wards is made easy online. They are able to access the library books online amid these situations. Online classes are effective and thus ensuring safety during the pandemic.

New Horizon College seems to have a vital supporting environment for students. Teachers are so good out there that they support students with academic interests. Placements have also been started and the college also provides placement training for students. The infrastructure is also found attractive with quality classrooms. The college provides quality education for the students which intend to shape their career well. Proud to be a part of NHCE.



Ms. Jyothi

## **ALUMNI TESTIMONIALS**



NHCE is a place of learning where overall growth of students is ensured. It is a place with students from different part of the country that helped me to know about their culture and languages which made me good team player at my work place. As for curriculum, NHCE has well equipped labs with helpful lab assistants. Lecturers are very approachable and they always available when there was need. As an EEE student, college gave me an opportunity to learn coding language which is not a subject of my stream but helped me to build my career as software engineer.

NHCE is an amalgamation of learning, fun, culture, diversity and much more. My four years at NHCE were great and a memory to cherish for lifetime. It was full of learning and grooming oneself. I'm grateful to all the faculty members in EEE department and the placement department for your valuable guidance, support and enhancing my skills to grow better professionally and personally. Overall, it was an amazing journey. I'm going to miss this place.



Ms. Suma M



Rohit Kumar Tiwari

Our HOD and his team helped us out in every single aspect of our stay in NHCE from academic clarifications to industrial excursions. They not just taught us the subjects for the exams but also motivated us to build our careers. They gave us sufficient industrial exposure so that we have a clear idea of the latest skills that would be in demand in the market. Such sort or an extraordinary effort taken by facility members is rare and it's a pleasure to have availed such efforts.

Best 4 years of my life. Electrical Department is the one the best departments in NHCE, excellent professors who made the coursework fun for us. The labs are extremly informative and hands on experience made it much easier for us to understand the theory. The professors are more like guides and freinds who help you when ever required. The department fest which is completly technology based, helps you display your knowledge that you have gained over the years. Students are encouraged to publish papers and take up projects that interest them. The placements are good and the college tries that every deserving student gets a job. On the whole it is a great place to be in.



Aishwarya Ghodgaonkar

## Let the peace be amplified and the world be rectified!

## THANK YOU