Criterion 7 – Institutional Values and Best Practices

Key Indicator 7.3: Institutional Distinctiveness

7.3.1 – Portray the performance of the Institution in one area distinctive to its priority and thrust

INDEX

7.3.1) INSTITUTIONAL DISTINCTIVENESS

I) Minority Institution

Established in the year 1980 with the motto of "Essence of Wisdom is Service to Humanity", the only minority Institution in the region of North Karnataka. Since its inception a large number of minority students have graduated successfully and settled well in their chosen fields. Also students from almost all states of the country graduated from this Institute making it truly cosmopolitan.

II) **NSS Unit:** The Institution has well established and a very dynamic NSS unit wherein students regularly take up initiates like street cleaning, spreading awareness on harmful effects of tobacco and drugs, tree plantation etc

III) **NCC:** The Institute has a well established NCC flight(wing) with a good number of students' enrollment. The wing has been serving the objectives of Cadet Corps since the last two decades. Presently the flight strength is 100 cadets. The cadets are trained regularly and take up any emergency work during natural calamities and help the needy.

IV) **Edureq Skill Development LLP:** This LLP got registered in the year 2022 under the NAIN center of the Institute. This start up aims to develop the skills of students so that they become industry ready by the time they pass out of the institute.

V) **Agritec solution LLP:** Aims at providing affordable solutions to farmers on various issues pertinent to cultivation of crops.

VI) **State of the Sports Infrastructure:** The college boasts of a 400m athletic track and field (8 lanes) with raised border and Hammer throw and Discus throw cages. Also indoor and outdoor stadia for sports like table tennis,

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PROCEEDINGS OF THE GOVERNMENT OF KARNATAKA

Sub: Admissions to Engineering Colleges in the State for the year 1986-87 - Fixing of intake in Minority Institutions.

Read: 1) Govt. Order No. ED 40 TEC 86 dt. 21.7.86
2) Govt. Order No. ED 19 UAC 86 dt. 1.9.86

PREAMBLE:

In the Government Order dt. 21.7.86 read at (1) above the intake pertaining in all the Engineering Colleges in the State for the year 1986-87 has been fixed. During the year 1985-86 some new courses were sanctioned to the Minority Engineering Colleges with the stipulation that 50% of the intake fixed in each course shall be filledup by Government as Merit seats. All the minority Engineering colleges except Sri Dharmastala Manjunatheswara Engineering College, Dharwad refused to admit Government Seats. Hence the courses sanctioned to minority Engineering colleges except Dharwad were withdrawn. / SDM

In the Government Order dt. 1.9.86 read at (2) above Government has restored the orders regarding sanction of new courses to the six minority Engineering Colleges during 1985-86 leaving all the seats to the managements of the concerned colleges and the Government Orders in which the courses were withdrawn is treated as cancelled. The Dharmastala Manjunatheswara Engineering College, Dharwad has been sanctioned computer Science course with an intake of 30 students. Out of the intake of 30 Government has taken over 15 seats as Government seats in the Government Order dt. 21.7.86 and the Director of Technical Education, Bangalore has allotted 15 students under merit pool during this year i.e., 1986-87. Hence, as in the case of all other minority Engineering Colleges, all the 30 seats in the Computer Science course has to be filled up by the management. After detailed examination Government are pleased to issue the following orders.

ORDER NO. ED 40 TEC 86, BANGALORE, DATED 6TH OCT. 1986

In partial modification of Government Order No. ED 40 TEC 86 dt. 21.7.86, Government are pleased to fix the intake in the courses in the six minority Engineering Colleges noted below from the academic year 1986-87 with the condition that all the seats shall be filledup by the concerned managements themselves:

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Name of the Engineering College	Courses	Intake fixed
1. M.V.J. College of Engineering, Bangalore	1) Computer Science	30
	2) Industrial Production Engg.	40
2. Gouala Institute of Technology, Ramanagaram	Electronics	40
3. Anjuman Engineering College, Bhatkal	Electronics	40
4. Manipal Institute of Technology, Manipal	Computer Science	30
5. Gurunanak Dev Eng. College, Bidar.	Computer Science	30
6. Dharmastala Manjunatheswara College of Engineering, Dharwad.	Computer Science	30

As Government has taken over 15 seats and selected 15 students under merit pool in the Dharmastala Manjunatheswara College of Engineering, Dharwad, in the computer science course for the year 86-87, the management of the College is permitted to fill up 30 students during 86-87. The intake of computer science course in the said college for 86-87 only shall be 45.

All other conditions issued in Government Order No. ED 40 TEC 86 dt. 21.7.86 shall continue to apply.

By Order and in the name of the Governor of Karnataka

(A.R. PRASAD)
Under Secretary to Government,
Education Department.

To

1. The Vice Chancellor, of Bangalore, Karnataka, Gulbarga and Mangalore Universities.
2. The Registrars of Bangalore, Karnataka, Gulbarga, and Mangalore Universities.
3. The Director of Technical Education, Bangalore.

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4. The Principals of 1) M.V.J. College of Engineering Whitefield, Bangalore- 67
2) Anjuman Engineering College, Bhatkal- 581320
3) Manipal Institute of Technology, Manipal 576 119.
4) Gousia Institute of Engineering, Ramanagaram- 571 511.
5) Gurunanak Dev Engineering College, Bidar- 585 401.
6) Dharmastala Manjunatheswara Engineering College, Dharwad- 580 004.

5. The Secretary:
1) Gokula Education Trust, Gokula Extension, B'lore- 54.
2) Gousia Engineering & Industrial Trust, C/o Gousia Engg. College, Ramanagaram- 571 511.
3) Dharmastala Manjunatheswara Education Trust, Dharmastala, Ujire, S.K. Dist.
4) Anjuman Harri- Muslim C/o Anjuman Engineering College, Bhatkal- 581 320. U.K. Dst.
5) Gurudwara Sahib Nanak Jeera, C/o Gurunanak Dev Engineering College, Bidar- 585 401.
6) Manipal Education Trust, Manipal- 576 119, S.K. Dist.

6. The Under Secretary to Government, Education Department, University Education Section.

7. The High Court Pleader, High Court buildings, Bangalore. (W.P. 15670, 14863 and 14800 of 1986)

8. Sri J.A. Sequeira, Advocate, 3 Lalbagh Road, Bangalore 27. With reference to W.P. 14800/86, 14803/86.

9. Sri P. Vishwanatha Shetty, Advocate, No.11 Jeevan buildings, K.P. East, Bangalore- 1 with reference to W.P. 15670/86

10. G.O. File/ Guard File/Spare copies.

Rp.

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ANNEXURE-C TO THE GOVERNMENT ORDER NO ED 20 TEC 2001 BANGALORE DATED 08/09/2000

(Addendum to ANNEXURE - C of G.O. No. ED 20 TEC 2000 Dated 26-08-2000)

(PRIVATE UNAIDED MINORITY COLLEGES)

Sl. No.	Courses	No. of Intake	Govt. Seats Free	Govt. Seats Pay	Mang. Seats Free	Mang. Seats Pay	NRI & Others
1- Sri Dharmasthala Manjunatheswara Engineering College, Dharwad, (Tulu Linguistic Minority)							
1	Information Science	30	8	7	8	3	4
		30	8	7	8	3	4
2- Khaja Bande Nawaz College of Engineering, Gulbarga, (Religious Minority)							
1	Information Science	40	10	10	10	4	6
		40	10	10	10	4	6
3- Gurunanak Dev Engineering College, Bidar, (Religious Minority)							
1	Information Science	40	10	10	10	4	6
		40	10	10	10	4	6
4- Manipal Institute of Technology, Manipal, (Konkani Linguistic Minority)							
1	Information Science	40	10	10	10	4	6
		40	10	10	10	4	6
TOTAL (ANNEXURE-C)		150	38	37	38	15	22

(K S VENUGOPAL)
UNDER SECRETARY TO GOVERNMENT
EDUCATION DEPARTMENT

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ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ
("ವಿ ಟಿ ಯು ಅಧಿನಿಯಮ ೧೯೯೪" ರ ಅಡಿಯಲ್ಲಿ ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯ)
Visvesvaraya Technological University
(State University of Government of Karnataka Established as per the VTU Act, 1994)
"Jnana Sangama" Belagavi-590018, Karnataka, India

ಪ್ರೊ. ಬಿ. ಈ ರಂಗಸ್ವಾಮಿ.
ಕುಲಸಚಿವರು

ದೂರವಾಣಿ ಸಂ : (0831) 2405468
ಫ್ಯಾಕ್ಸ್ ಸಂ : (0831) 2405467

ಸಂ. ವಿತಾವಿ/ಬಿಜಿಎಮ್/ಎನ್.ಎಸ್.ಎಸ್/ನೇಆ/09/2022-23/ 826 ದಿನಾಂಕ: 25 JAN 2023

ನೇಮಕಾತಿ ಆದೇಶ

ವಿಷಯ : ರಾಷ್ಟ್ರೀಯ ಸೇವಾ ಯೋಜನಾ ಘಟಕಕ್ಕೆ ಕಾರ್ಯಕ್ರಮಾಧಿಕಾರಿ ನೇಮಕಾತಿ ಬಗ್ಗೆ.

ಉಲ್ಲೇಖ : 1. GNDECB/ACA/NSS/2021-22/9955 Dtd: 24/11/2022
2. ಸಂಖ್ಯೆ: ವಿ.ತಾ.ವಿ ಬಿಜಿಎಮ್/ಪಿಎಸ್/2017-18/3669 ದಿನಾಂಕ : 7.08.2017
3. ಮಾನ್ಯ ಕುಲಪತಿಗಳ ಅನುಮೋದನೆ ಕ್ರಮ ಸಂಖ್ಯೆ : 10 ದಿನಾಂಕ : 10.01.2023

***

ಉಲ್ಲೇಖಿತ ಪತ್ರದಲ್ಲಿ ಕಾರ್ಯಕ್ರಮಾಧಿಕಾರಿಗಳ ನೇಮಕಾತಿ ಮಾಡಿ ಅನುಮೋದನೆಗಾಗಿ ಕಳುಹಿಸಿರುವುದು ಸರಿಯಷ್ಟೆ. ಸದರಿ ನೇಮಕಾತಿಯನ್ನು ಉಲ್ಲೇಖಿತ ಪತ್ರದನ್ವಯ ಹಾಗೂ ರಾಷ್ಟ್ರೀಯ ಸೇವಾ ಯೋಜನಾ ಮಾರ್ಗ ಸೂಚಿಯ ಪ್ರಕಾರ, ಈ ಕೆಳಕಂಡ ಉಪನ್ಯಾಸಕರನ್ನು ರಾಸೇಯೋ ಘಟಕ-1ರ ಕಾರ್ಯಕ್ರಮಾಧಿಕಾರಿಯಾಗಿ ದಿನಾಂಕ : 10.01.2023 ರಿಂದ ಅನ್ವಯವಾಗುವಂತೆ ನೇಮಕ ಮಾಡಲಾಗಿದೆ.

ಕ್ರ.ಸಂ	ಕಾಲೇಜಿನ ಹೆಸರು	ಕಾರ್ಯಕ್ರಮಾಧಿಕಾರಿಗಳ ನೇಮಕಗೊಂಡವರ ಹೆಸರು
1.	ಗುರುನಾನಕ ದೇವ ಇಂಜಿನಿಯರಿಂಗ್ ಕಾಲೇಜ ಬೀದರ್	ಪ್ರೊ. ದಿಗಂಬರ್. ಬೆಣ್ಣೆ. ಗುರುನಾನಕ ದೇವ ಇಂಜಿನಿಯರಿಂಗ್ ಕಾಲೇಜ ಬೀದರ್

1. ನೂತನವಾಗಿ ನೇಮಕಗೊಂಡವರ ದಿನಾಂಕ : 10.01.2023 ರಿಂದ ಅಥವಾ ಮುಂದೆ ತರಬೇತಿ ಪಡೆಯುವ ದಿನಾಂಕದಿಂದ ಯಾವುದು ನಂತರ ಘಟಿಸುತ್ತದೆಯೋ ಅಲ್ಲಿಂದ ಕನಿಷ್ಠ 03 ವರ್ಷಗಳವರೆಗೆ ಎನ್.ಎಸ್.ಎಸ್. ಕಾರ್ಯಕ್ರಮಾಧಿಕಾರಿಗಳಾಗಿ ಸೇವೆ ಸಲ್ಲಿಸಬೇಕು.
2. ಮೈಸೂರು ಅಥವಾ ಬೇರಾವುದೇ ಸ್ಥಳದಲ್ಲಿ ನಡೆಯುವ ರಾಸೇಯೋ ತರಬೇತಿಯಲ್ಲಿ ಪಾಲ್ಗೊಳ್ಳಬೇಕು.
3. ಕೇಂದ್ರ ರಾಜ್ಯ ಸರ್ಕಾರ ಹಾಗೂ ವಿಶ್ವವಿದ್ಯಾಲಯ ತಿಳಿಸುವ ಎಲ್ಲಾ ಕಾರ್ಯಕ್ರಮಗಳನ್ನು ಹಮ್ಮಿಕೊಂಡು, ವಿಶ್ವವಿದ್ಯಾನಿಲಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ವರದಿಯನ್ನು ಸಲ್ಲಿಸಬೇಕು.
4. ಕಾಲೇಜು ಮಟ್ಟದ ಶಿಬಿರಗಳನ್ನು ಏರ್ಪಡಿಸಬೇಕು ಮತ್ತು ವಿಶ್ವವಿದ್ಯಾಲಯದ ಮಟ್ಟದ, ರಾಜ್ಯ ಮಟ್ಟದ, ರಾಷ್ಟ್ರ ಮಟ್ಟದ, ಶಿಬಿರಗಳಿಗೆ ತಮ್ಮನ್ನು ಅಥವಾ ಸ್ವಯಂ ಸೇವಕರನ್ನು ಭಾಗವಹಿಸುವಂತೆ ತಿಳಿಸಿದಾಗ ತಪ್ಪದೇ ನಿಯೋಜಿಸಬೇಕು.

ಪ್ರಸ್ತುತ ನೇಮಕಗೊಂಡ ಕಾರ್ಯಕ್ರಮಾಧಿಕಾರಿಗಳು ರಾಸೇಯೋಗೆ ಸಂಬಂಧಿಸಿದ ಸಲಕರಣೆ ಮತ್ತು ದಾಖಲಾತಿಗಳನ್ನು ಪ್ರಾಂಶುಪಾಲರು ಸಮಕ್ಷಮ ವಹಿಸಿಕೊಂಡಿರುವ ವರದಿಯನ್ನು ಈ ಕಛೇರಿಗೆ ಕಳುಹಿಸಿಕೊಡಬೇಕು.

Ray 23/01/23 BE
ಕುಲಸಚಿವರು

ಇವರಿಗೆ,

ಪ್ರಾಂಶುಪಾಲರು,
ಗುರುನಾನಕ ದೇವ ಇಂಜಿನಿಯರಿಂಗ್ ಕಾಲೇಜ, ಬೀದರ್.

11.1.23

ಪ್ರತಿಗಳು :

1. ಪ್ರೊ. ದಿಗಂಬರ್. ಬೆಣ್ಣೆ. ಗುರುನಾನಕ ದೇವ ಇಂಜಿನಿಯರಿಂಗ್ ಕಾಲೇಜ, ಬೀದರ್. ಇವರಿಗೆ ಎನ್.ಎಸ್.ಎಸ್. ಕಾರ್ಯಕ್ರಮಾಧಿಕಾರಿಗಳಾಗಿ ವಹಿಸಿಕೊಳ್ಳಲು ಕೋರಿದೆ.

Copy to Digambar Benne Mech. Dept.

PRINCIPAL
Guru Nanak Dev Engg. College, Bidar

Tele: 08482-227204
Email: 3karairtncc@gmail.com

3 (Kar) Air Sqn (T) NCC
Opposite District Fire Station
Fort Road, Bidar-585401

3 Air NCC / 174 / Trg

14 Jul 2023

The Principal
Guru Nanak Dev Engg College,
Bidar – 585401

NCC FLIGHT AT GNDE COLLEGE

1. It is intimated that NCC Senior Division/ Senior Wing (One Flight) is available in your college. Flt Lt Anoop Kumar Elia is the Associate NCC Officer in your college. The Flight strength of your college is 100 Cadets (Boys & Girls both). NCC training resources (syllabus & training materials) are available on NCC web site https://indiancc.nic.in and NCC Mobile App. Mobile App can be downloaded from Google Play Store on Android Smart Mobile Phones. Cadets may be advised to avail these resources.

2. For your information.

3(Kar) Air Sqn (T) NCC BIDAR

(GBR Dattu)
Group Captain
Commanding Officer

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CERTIFICATE NO:
DIPP119970

#startupindia

Government of India
Ministry of Commerce & Industry
Department for Promotion of Industry and Internal Trade

CERTIFICATE OF RECOGNITION

This is to certify that EDUREQ SKILL DEVELOPMENT LLP incorporated as a Limited Liability Partnership on 14-07-2022, is recognized as a startup by the Department for Promotion of Industry and Internal Trade. The startup is working in 'Education' Industry and 'Skill Development' sector as self-certified by them.

This certificate shall only be valid for the Entity up to Ten years from the date of its incorporation only if its turnover for any of the financial years has not exceeded ₹ 100 Cr.

16-01-2023	13-07-2032
DATE OF ISSUE	VALID UPTO

PRINCIPAL
Guru Nanak Dev Engg. College, Bidar

Falcon eBiz
Private Limited

GURU NANAK JHIRA ENTREPREUNERSHIP RESEARCH & BUSINESS INCUBATION FOUNDATION / U80902KA2022NPL163460

LAST UPDATED : 21-06-2023 | **REQUEST UPDATE**

GURU NANAK JHIRA ENTREPREUNERSHIP RESEARCH & BUSINESS INCUBATION FOUNDATION having CIN **U80902KA2022NPL163460** is **11 months & 18 days** old Private company incorporated with MCA on **6th July, 2022**. GURU NANAK JHIRA ENTREPREUNERSHIP RESEARCH & BUSINESS INCUBATION FOUNDATION is listed in the class of Private company and classified as Non-govt company. This company is registered at Registrar of Companies(ROC) Bangalore with an Authorized Share

State of the Sports Infrastructure

400m Athletic Track

Volleyball Court

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Guru Nanak Dev Engg. College, Bidar

Basketball Court

Hockey Ground

PRINCIPAL
Guru Nanak Dev Engg. College, Bida

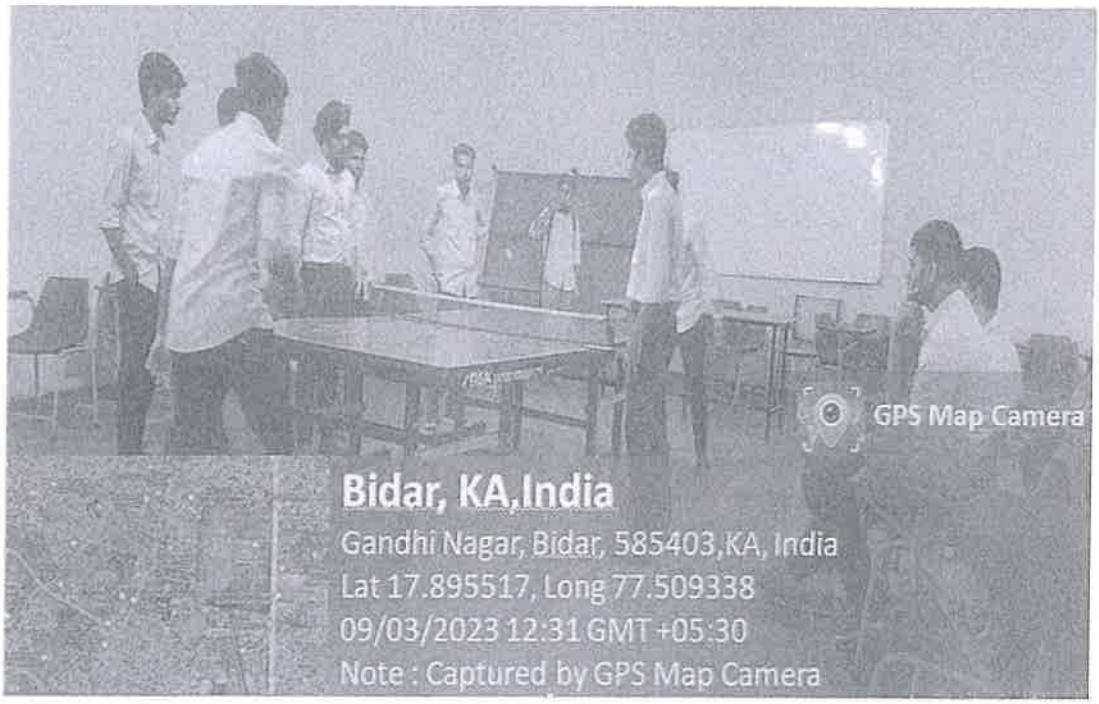
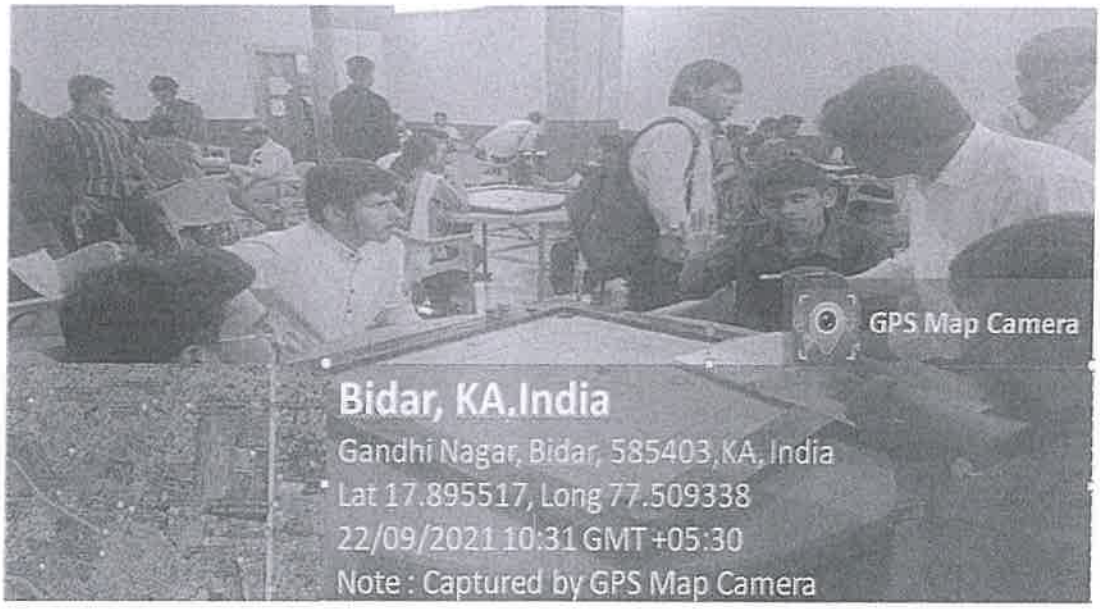


Table Tennis



Carrom

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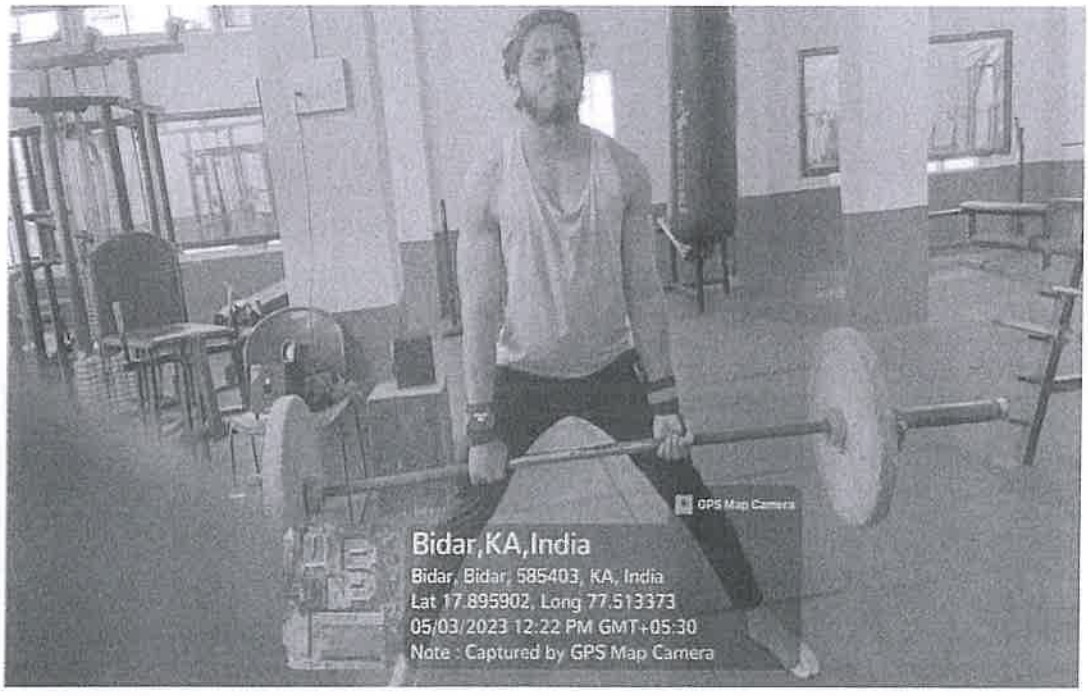
Chess



College Gym

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basketball are present. Also Gym for boys in set up in the Boys' Hostel.

VII) Institute Innovation Council: GNDEC has established Institution Innovation Council during 2020-21 which aims at promoting the ideas to culminate into innovation.

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VIII) Professional student chapters:

1) IEEE
2) MOUs with various foreign Universities
3) ACM

1) Activities Under IEEE

REPORT ON A FIVE-DAY FACULTY DEVELOPMENT PROGRAMME ON "RESEARCH METHODOLOGIES AND LATEX"

The R&D Centre of E&CE department has organized A Five-Day FDP on "Research Methodologies and LaTeX" during 15th-19th February 2018. The workshop was inaugurated by

Col. Sharan Sikenpore (Retd). The guests of this workshop were **Dr. Ashok Biradar**, principal, and **Dr. M.S. Shiva Reddy**, Director(academics), GNDEC, Bidar. This programme trained nearly 60 participants of various institutions of Karnataka, Maharashtra and Telangana.

During the **first day** of FDP, Dr.KonkalluHanumaeGowdof*Dept. of Chemistry, CUK,* Kalaburagi has delivered a talk on "Research Methodologies" and conducted various activities to demonstrate it.

During the **second day** of FDP, Dr. Layak Ali,*Dept. of E&CE, Central University of Karnataka (CUK),* Kalaburagi has explained LaTeX - introduction, installation, LaTeX basic document structure and LaTeX packages. Hands on experience on all these topics are done in Intel innovative lab.

During the **third day** of FDP, Dr. Layak Ali has explained document formatting, working with theorems, bibliography, bibTex and database creation. He has also explained various

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Guru Nanak Dev Engg. College, Bidar

paper formatting (namely, IEEE, Elsevier, and Springer) and thesis preparation in LaTeX. Hands on experience on all these topics are done in Intel innovative lab.

During the **fourth day** of FDP, Dr. Nagshetty. Biradar, *Principal, BheemannaKhandre Institute of Technology,* Bhalkihas delivered a talk on "Research challenges, strategies and tools" for young researchers.

During the **fifth day** of FDP, Dr. Ravindra Eklarker,Professor& Head ofE&CE dept., Guru Nanak Dev Engineering College, Bidar, has delivered a talk on "intellectual properties" to young researchers.

This five day FDP was coordinated byDr.RavindraEklarker, Dr. Md. Bakhar and Prof. Veerendra. D ofE&CE dept., Guru Nanak Dev Engineering College, Bidar.

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basketball are present.

VII) Institute Innovation Council: GNDEC has established Institution Innovation Council during 2020-21 which aims at promoting the ideas to culminate into innovation.

MoE's INNOVATION CELL (GOVERNMENT OF INDIA)

INSTITUTION'S INNOVATION COUNCIL

AICTE

CERTIFICATE

This is to certify that

Guru Nanak Dev Engineering College, BIDAR, BIDAR

has established Institution Innovation Council(IIC) as per the norms of Innovation Cell, Ministry of Education, Govt. of India during IIC Calendar year 2020-21

Prof.Anil D.Sahasrabudhe
Chairman, AICTE

Dr. Abhay Jere
CIO, MHRD,
Innovation Cell

Date : 2020-09-11

Certificate No : 3810

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VGST Sponsored Faculty Development Programme on, "*Advanced Antenna Technology and Smart Antennas* "

Date: 01- 04 Dec. 2018

The Dept. of E&CE has organized a four dayVGSTsponsoredFaculty Development Programme (FDP) on "**Advances in Antenna Technology and Smart Antennas**" from 1st Dec. 2018 to 4th Dec. 2018. Total of 50 faculty members from various institutes of the country have participated. The resource persons and topics covered by them for this FDP are

S.No	Speakers	Topic Covered
1	**Dr.Prakasa Rao A** *NIT., Warangal*	Adaptive Beam forming Algorithms
2	**Dr. S. N. Mulgi** *GulbargaUniversity Kalaburagi*	Antenna fundamentals and Microstrip Antennas
3	**Dr.P.VHunagund** *Gulbarga University Kalaburagi*	Electromagnetic Hazards & Microstrip Antennas
4	**Dr. Ambrish P.Ambalgi** *Mangalore University*	Design and study of different Microstrip Antennas
5	**Dr. Md. Bakhar** GNDEC Bidar	Advances in smart antennas
6	**Dr. Kishan Singh** *GNDEC Bidar*	Advances in Microstrip Antennas

The curriculum was presented the techniques for designing, modelling and fabrication of different types of basic antennas. It aimed to provide a platform to the participant to grab knowledge in the field of antennas in various applications and about the emerging technology of Microwave integrated circuits. The program also included the various aspects of microstrip antennas and the state of the art developments that have taken place in the recent time. Also antennas in several fields including communications, remote sensing, science, RF navigation systems, etc. A photograph of FDP in shown below.

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Teaching-learning is an important process in academic institution. Transfer of knowledge takes place from the teacher to the students only when the teaching is effective.

The objectives of the program are aim to provide a platform to the participant to grab knowledge in the field of Array antennas, signal processing, image processing, processing, pattern processing. The program will include the most recent and exciting advances in machine learning for signal processing that have taken place in the recent time. It opens up opportunity to highlight the design consideration and applications of signal, image, using machine learning.

- Compressive Sampling and Sensing
- Computational Imaging and Inverse Problems
- Data Science
- Machine Learning, deep learning, convolution neural network (CNN) methods
- Random matrix theory and applications
- Signal Processing for Sensing and Sensor Networks
- Source Coding and Compression
- Statistical Estimation and Learning

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National Conference on Advances in Electronics, Computing and Communication Technology (NCAECC 2020)

The developments in the field of Engineering and Technology have made enormous contributions in all walks of life. The world consists of a large number of natural and man-made systems which has paved the way for innovation and creativity. The field of Electronics, Communication and Computer science is not far behind in this race. The ever increasing restrictions in power, space, Industrial Automation and biomedical instrumentation is a cue to set up a new era in which communication tools, Control system algorithms and Digital signal processing applications have to be embedded with VLSI techniques for attaining better results. These needs are the real inspirational force behind NCAECC-2020.

The departments of E&CE of Guru Nanak Dev Engineering College, Bidar, Karnataka, India is elated to organize the National Conference on Advances in Electronics, Computing and Communication Technology (NCAECC 2020) on 11-12, August 2020. We received a total of 50 full-paper submissions from different states of the country. All papers were subjected to a rigorous review process. A total of 10 reviewers participated in the review and paper selection. After deliberation, 36 papers were selected based on the recommendations of the review committee. Eminent scientists and professors have been invited to deliver Plenary Sessions in the conference, which will enlighten us with their enormous acquaintance in the field during various sessions of the conference. The invited speakers will bring to light the cutting edge technologies in various areas so that the participants may benefit from this technical gorge. We are happy to place on record the cooperation, support and guidance received from all quarters. We would like to thank all the reviewers, authors, session chairs and the participants for their active participation in molding this conference into a rich technical forum.

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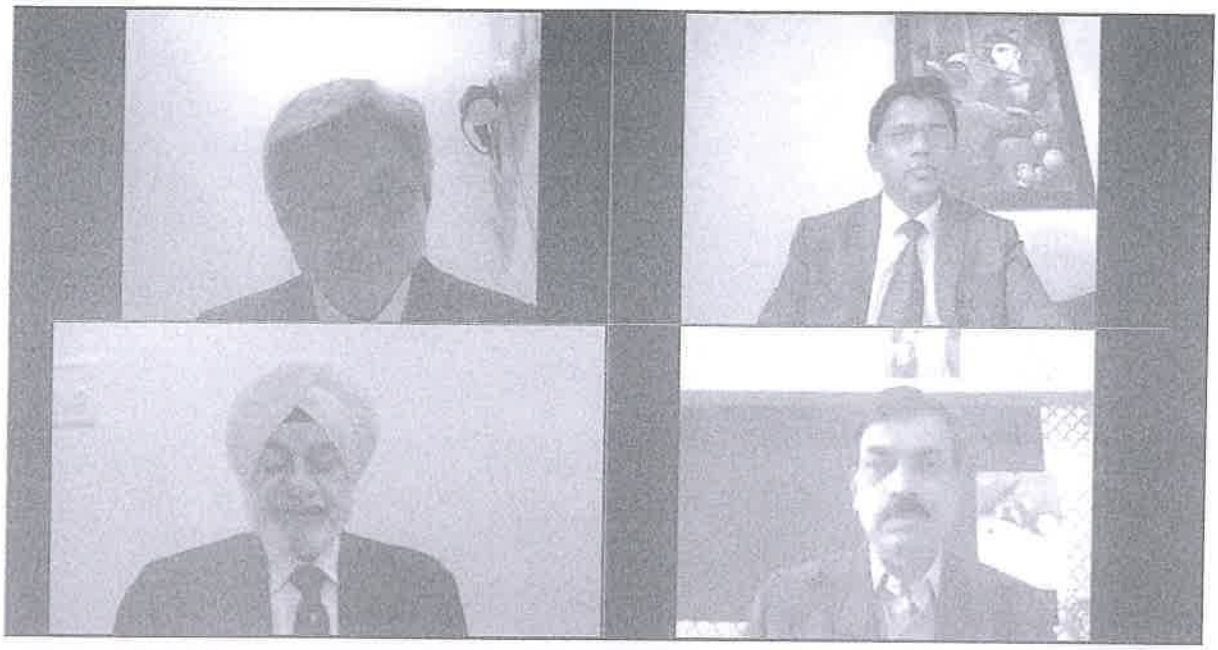

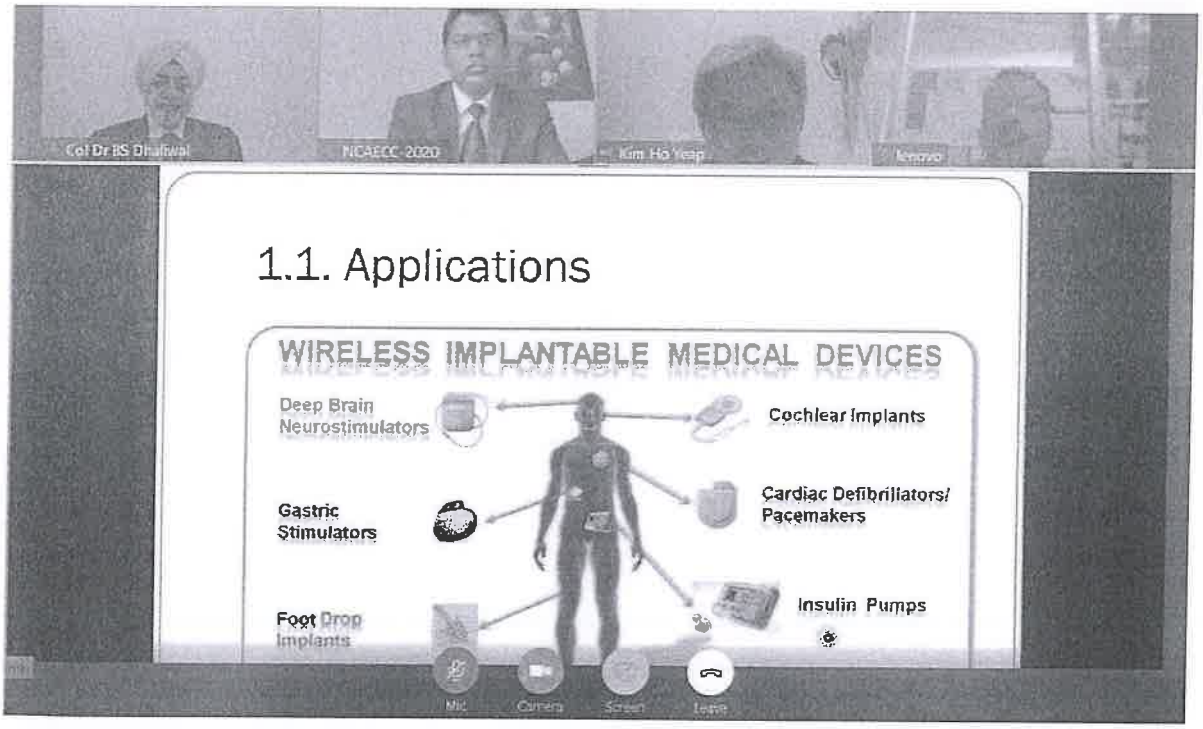

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IEEE-GNDEC Student Branch

The IEEE CAS chapter of the E&CE department, Guru Nanak Dev Engineering College, Bidar, Karnataka has organized an international webinar on "On 24th April 2021 @ 7.30 PM (IST). The speaker of this webinar was Dr. Cheng Qian, Ph.D., Postdoc (USA) , Senior Machine Learning Scientist ,IQVI, Cambridge, USA. This webinar was hosted using the Google Meet Link

https://meet.google.com/ocs-auus-nzat 7.10 pm (IST). Dr. Veerendra Dakulagi, the IEEE Student Branch Counselor, GNDEC Bidar has welcomed the gathering. A total of 98 participants (students and staff) from our college, other colleges of our country a have actively taken participation. Mrs. Reshma Kaur, Vice chairperson, and Col. Dr. B.S. Dhaliwal, Director Academics, G.N.D. Group of Institutes, Bidar, Dr. Ravindra Eklarker, Principal, GNDEC, Bidar, and Dr. Md. Bakhar, HOD (E&CE) have also attended this.

This webinar aims at introducing the students/staff to the fundamentals of machine learning (ML) techniques useful for various signal processing applications. It will discuss various mathematical methods involved in ML, thereby enabling the students to design their own models and optimize them efficiently. The webinar has focused on mathematical principles, coding, and applications in signal processing and communication.

Outcomes of the webinar

ML for Audio Classification

- Time Series Analysis, LSTMs and CNNs

- ML for Speech Recognition
  - Hidden Markov Models, Finite State Transducers and Dynamic Programming

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- ML for Music Information Retrieval
    - Latent Variable Models, Matrix Factorization and Signal Separation
- ML for Image Processing
    - Transfer Learning, Attention models, Attribute-based learning
- ML for Communication
    - Deep learning for wireless applicatio

A few snapshots of the webinar are displayed below.

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IEEE-GNDEC Student Branch

The IEEE CAS chapter of the E&CE department, Guru Nanak Dev Engineering College, Bidar, Karnataka has organized an international webinar on "*Design of the Front-End Optics for Radio Telescopes*" on 20-April 2021. The speaker of this webinar was Dr. Kim Ho Yeap,Department of Electronic, Engineering, Faculty of Engineering and Green Technology, UniversitiTunku Abdul Rahman Kampar, Perak, Malaysia. This webinar was hosted using the Google Meet Link https://meet.google.com/iun-kkww-hzx at 9.10 am (IST). Dr. Veerendra Dakulagi, the IEEE Student Branch Counselor, GNDEC Bidar has welcomed the gathering. A total of 62 participants (students and staff) from our college, other colleges of our country and UTAR Malaysia have actively taken participation. Col. Dr. B.S. Dhaliwal, Director Academics, G.N.D. Group of Institutes, Bidar, Dr. Ravindra Eklarker, Principal, GNDEC, Bidar, and Dr. Md. Bakhar, HOD (E&CE) have also attended this.

Dr. Kim Ho Yeap has personated a webinar on the *Design of the Front-End Optics for Radio Telescopes*. During his presentation, he has highlighted the Physics of Radio Telescopes and Radio Astronomy. During his presentation, he has explained development of a simple home-brew radio telescope. Also, he has stressed on his work Atacama Large Millimeter/sub millimeter (ALMA) Array Front End (FE) system is the first element in a complex chain of signal receiving, conversion, processing and recording. 70 Front Ends will be required for the project. The Front End is designed to receive signals in ten different frequency bands. In the initial phase of operations, the antennas will be fully equipped with six bands. These are Band 3 (84-116 GHz), Band 4 (125-163 GHz), Band 6 (211-275 GHz), Band 7 (275- 373 GHz), Band 8 (385-500 GHz) and Band 9 (602-720 GHz). Dr. Mr. Muneeb A, student chair of the IEEE CAS chapter of the E&CE department has delivered the vote of thanks.

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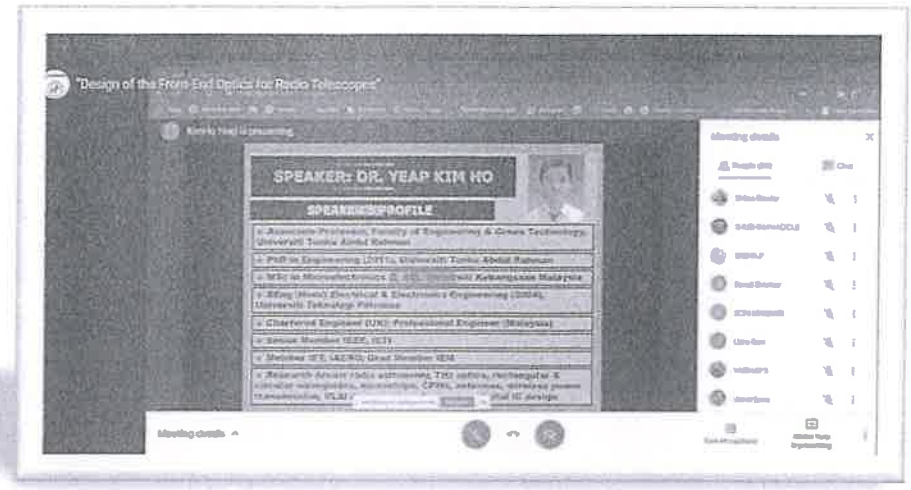
The recording of this webinar has been uploaded to our **IEEE GNDEC BIDAR YouTube channel** on 20-April 2021. The link of the video is https://youtu.be/VG-osQ6lOcc.

A few snapshots of the webinar are displayed below.



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International Conference on Advances in Communication and Computing Technology (ICACCT-2021) held on 28-29, December 2021

The developments in the field of Engineering and Technology have made enormous contributions in all walks of life. The world consists of a large number of natural and man-made systems which has paved the way for innovation and creativity. The field of Electronics, Communication, and Computer science is not far behind in this race. The ever-increasing restrictions in power, space, Industrial Automation, and biomedical instrumentation is a cue to set up a new era in which communication tools, Control system algorithms, and Digital signal processing applications have to be embedded with VLSI techniques for attaining better results. These needs are the real inspirational force behind ICACCT-2021.

The department of E&CE of Guru Nanak Dev Engineering College, Bidar, Karnataka, India in joint collaboration with UTAR and UTP Malaysia is organizing two days International Conference on Advances in Communication and Computing Technology (ICACCT-2021) on 28-29, December 2021. We received a total of 120 full-paper submissions from different countries. We received papers from USA, Malaysia, Uttarakhand, IIT, NIT, Kerala, Andra, Maharashtra etc.

All papers were subjected to a rigorous review process. A total of 40 reviewers participated in the review and paper selection. After deliberation, 75 papers were selected based on the recommendations of the review committee.

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Eminent scientists and professors have been invited to deliver plenary sessions at the conference, which will enlighten students and staff with their enormous acquaintance in the field during various sessions of the conference. The invited speakers will bring to light cutting-edge technologies in various areas so that the participants may benefit from this technical gorge. We are happy to place on record the cooperation, support and guidance received from all quarters. We would like to thank all the reviewers, authors, session chairs, and participants for their active participation in molding this conference into a rich technical forum.

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Prof. Vimala Kulkarni, *Asst. Professor, ISE Dept, GNDEC, Bidar, India.*

Dr. Nagraj R G,*Assoc.. Professor, Mechanical Dept, GNDEC, Bidar, India.*

Dr. Math Shivalingayya, *Asst. Professor, Physics Department, GNDEC, Bidar, India.*

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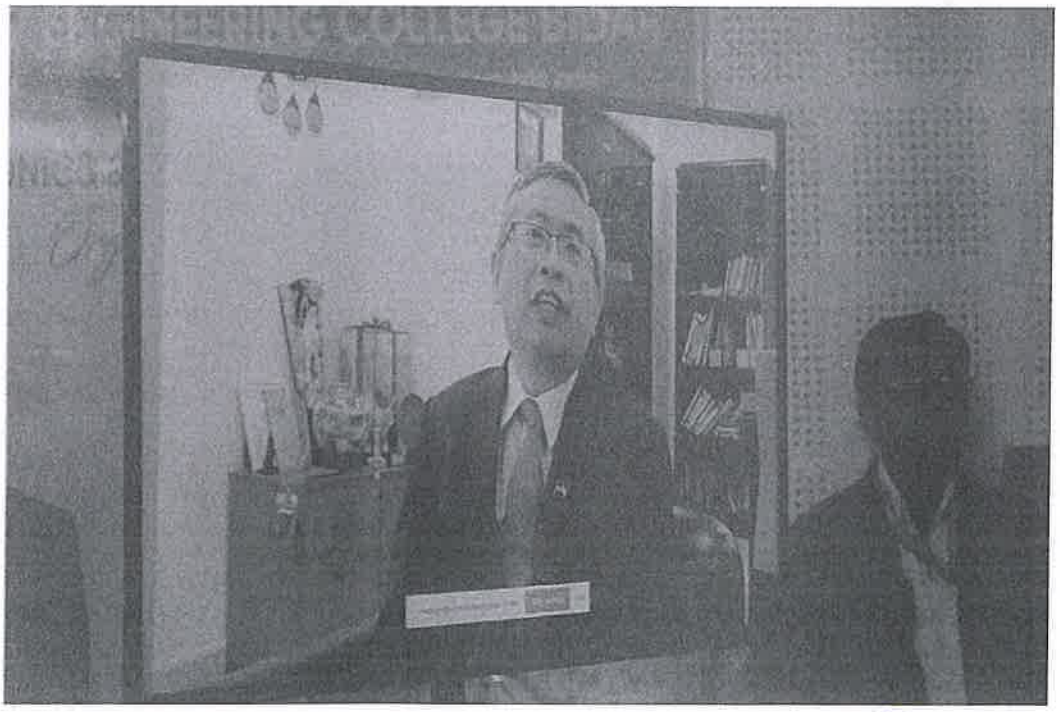

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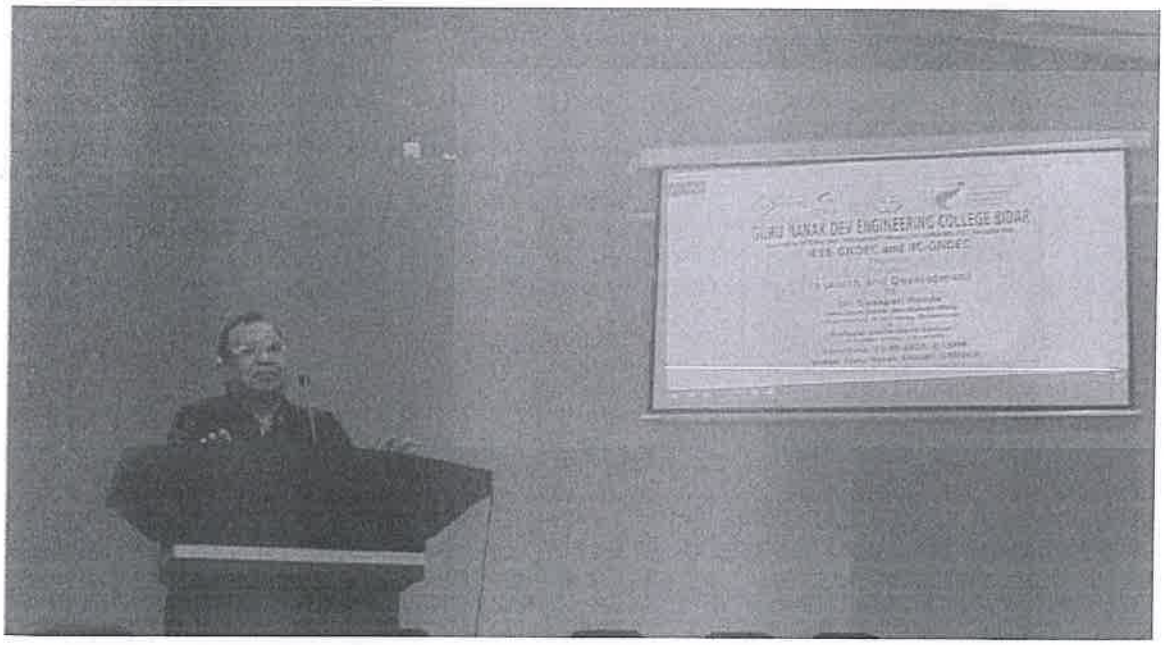
IEEE CAS Student Branch Chapter

Report on one-day expert talk on "Research and Development" on 21-05-2022

On Saturday, 21-05-2022, the IEEE-CAS Chapter and the IIC-GNDEC have jointly organized an expert talk on **"Research and Development".** The distinguished speaker of this talk was Professor Ganapati Panda is currently working as a Professor and Research Advisor at C V Raman Global University-Odisha, Bhubaneswar, he served as the Deputy Director, Dean (Academic Affairs), of Electrical Sciences at the Indian Institute of Technology, Bhubaneswar. A total of 91 faculty members were actively participated in this event.

Snapshot of this event is depicted below.



Key outcomes of this expert talk are:

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1. Discovering, Narrowing, and Focusing a Researchable Topic
2. Finding, Selecting, and Reading Sources
3. Grouping, Sequencing, and Documenting Information
4. Writing the Introduction
5. Writing the Body
6. Writing the Conclusion
7. Revising the Final Draft
8. Writing an effective Research Proposal.
9. Indian and International agencies for the research proposal assistance.

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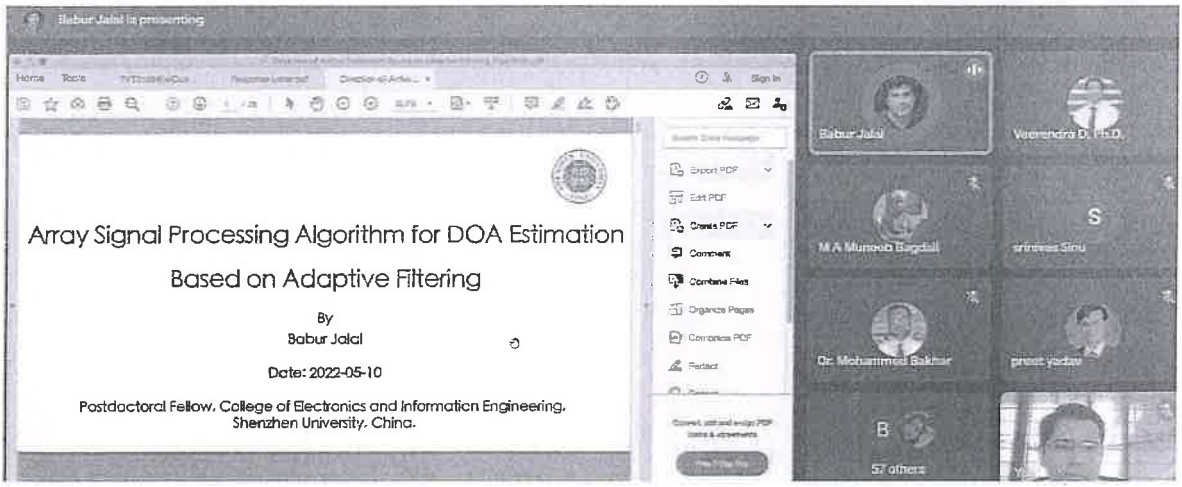
IEEE CAS Student Branch Chapter

Report on one-day International Webinar on One-day International webinar on*Direction-of-Arrival Estimation Based on Adaptive Filtering Algorithms* by Dr. Babur Jalal, Postdoctoral Fellow, Shenzhen University, Shenzhen, China.

On 10th May-2022, IEEE CAS Student Branch Chapter of GNDECB has conducted one-day International webinar on *Direction-of-Arrival Estimation Based on Adaptive Filtering Algorithms* by Dr. Babur Jalal, Postdoctoral Fellow, Shenzhen University, Shenzhen, China" to all the staff and students members of GNDECB. A total of 72 participants were actively participated in this event.



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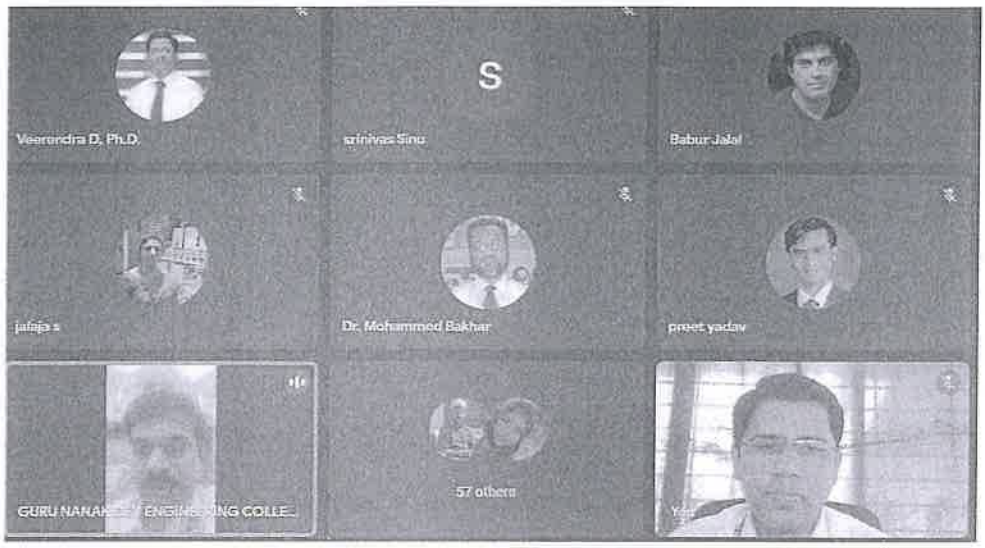

Following points were discussed in the talk.

Array processing is a wide area of research in the field of signal processing that extends from the simplest form of 1 dimensional line arrays to 2 and 3 dimensional array geometries. Array structure can be defined as a set of sensors that are spatially separated, e.g. radio antenna and seismic arrays. The sensors used for a specific problem may vary widely, for example microphones, accelerometers and telescopes. However, many similarities exist, the most fundamental of which may be an assumption of wave propagation. Wave propagation means there is a systemic relationship between the signal received on spatially separated sensors. By creating a physical model of the wave propagation, or in machine learning applications a training data set, the relationships between the signals received on spatially separated sensors can be leveraged for many applications. Some common problems that are solved with array processing techniques are:

- determine number and locations of energy-radiating sources
- enhance the signal to noise ratio SNR "signal-to-interference-plus-noise ratio (SINR)"
- track moving sources

Array processing metrics are often assessed noisy environments. The model for noise may be either one of spatially incoherent noise, or one with interfering signals following the same propagation physics. Estimation theory is an important and basic part of signal processing field, which used to deal with estimation problem in which the values of several parameters of the system should be estimated based on measured/empirical data that has a random component. As the number of applications increases, estimating temporal and spatial parameters become more important. Array processing emerged in the last few decades as an

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active area and was centered on the ability of using and combining data from different sensors (antennas) in order to deal with specific estimation task (spatial and temporal processing). In addition to the information that can be extracted from the collected data the framework uses the advantage prior knowledge about the geometry of the sensor array to perform the estimation task. Array processing is used in radar, sonar, seismic exploration, anti-jamming and wireless communications. One of the main advantages of using array processing along with an array of sensors is a smaller foot-print. The problems associated with array processing include the number of sources used, their direction of arrivals, and their signal waveforms.

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IEEE CAS and IEEE ITS Student Branch Chapters

Report on one-day Webinar on "Neurofeedback Training (NFT) and Cognitive"---4th March 2022

Guru Nanak Dev Engineering College Bidar in association with the IEEE North Karnataka Sub Section and the IEEE Bangalore Section, has organized a live webinar on "**Neurofeedback Training (NFT) and Cognitive**" on 4th March 2022 using Webex link

https://ieeemeetings.webex.com/ieeemeetings/j.php?MTID=m64abb14143a57f73d77f4d6cba4f680b

Friday, Mar 4, 2022 12:00 pm | 1 hour | (UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi

Meeting number: 2535 927 3537

Password: mkss2022.

The speaker of this webinar was, Dr. Humaira Nisar, Professor, Head of Master of Engineering Electronic Systems Programme, Department of Electronic Engineering, Faculty of Engineering and Green Technology, UTAR, Malaysia.

The moderator of this webinar was, Dr. Veerendra Dakulagi, Execom Member, IEEE NKSS Assco. Prof. of ECE. Dept.GNDECB, India.

The abstract of this webinar is as follows:

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Neurofeedback training (NFT) enables the participants to learn self-control of the EEG activity of interest based on real time feedback. This procedure has demonstrated benefits in the treatment of various neurological disorders, and improvement of cognitive and behavioral performance of healthy individuals. This study investigates the effect of long-term alpha up regulation neurofeedback training (NFT) on cognitive performance in healthy adults. A total of 50 healthy participants took part in this study and were divided into two groups (NFT group = 25 and Control group = 25). We found a significantly enhanced alpha rhythm after training in the NFT group which was not observed in the control group. The immediate subsequent effects were greater in more than 80% of the sessions from the initial recordings. In this talk we will specifically explore the NFT effects towards response-conflict resolution phenomenon by investigating changes in absolute power and functional connectivity in different bands of response-conflict EEG. The results of this study show an increase in theta and alpha band power and functional connectivity. A significant improvement in theta and alpha band functional connectivity is observed in the NFT group that is not present in the control group. No training specific modulation is observed in beta band functional connectivity. These findings provide a strong rationale for the use of NFT in the resolution of response-conflict phenomenon in healthy human beings.

A total of 40 faculty members from India and Malaysia including Dr. Yeap Kim Ho, UTAR, Malaysia, Dr.Baswaraj S Anami, Chair, IEEE NKSS, Principal, KLEIT, Hubballi, Dr. Ravindra Eklarker, Principal, GNDEC, Bidar, Mr. Ravi Hosamani, Secretary, IEEE NKSS, Asst. Professor, Dept of ECE,KLEIT, Hubballi, Dr. Md. Bakhar, HOD, ECE, GNDECB have participated this webinar.

Key outcomes of this webinar are:

1. Understanding and analysis of Neurofeedback as a treatment for children with developmental disorders.
2. Understanding and analysis of EEG-Based Neurofeedback Game for Focus Level enhancement.

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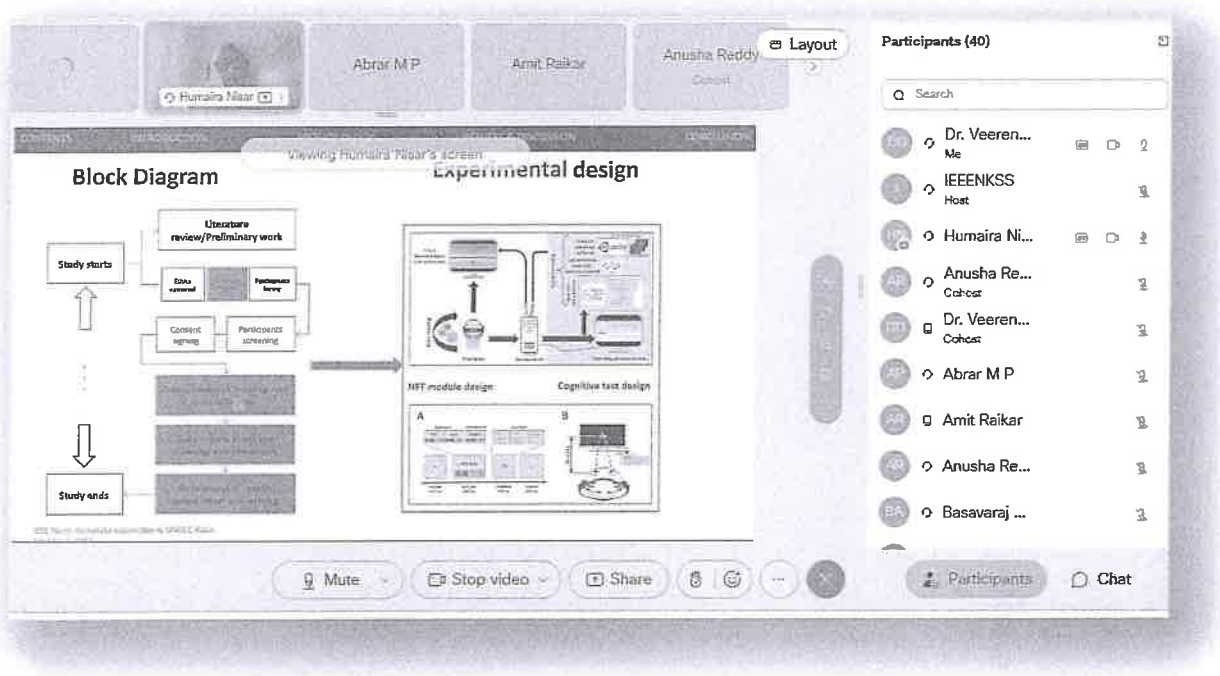
3. Understanding and analysis of EEG-based alpha neurofeedback training for mood enhancement.

4. Understanding and analysis of convolutional neural networks for classification of music-listening EEG: comparing 1D convolutional kernels with 2D kernels and cerebral laterality of musical influence.

Snapshots of this event are depicted below.



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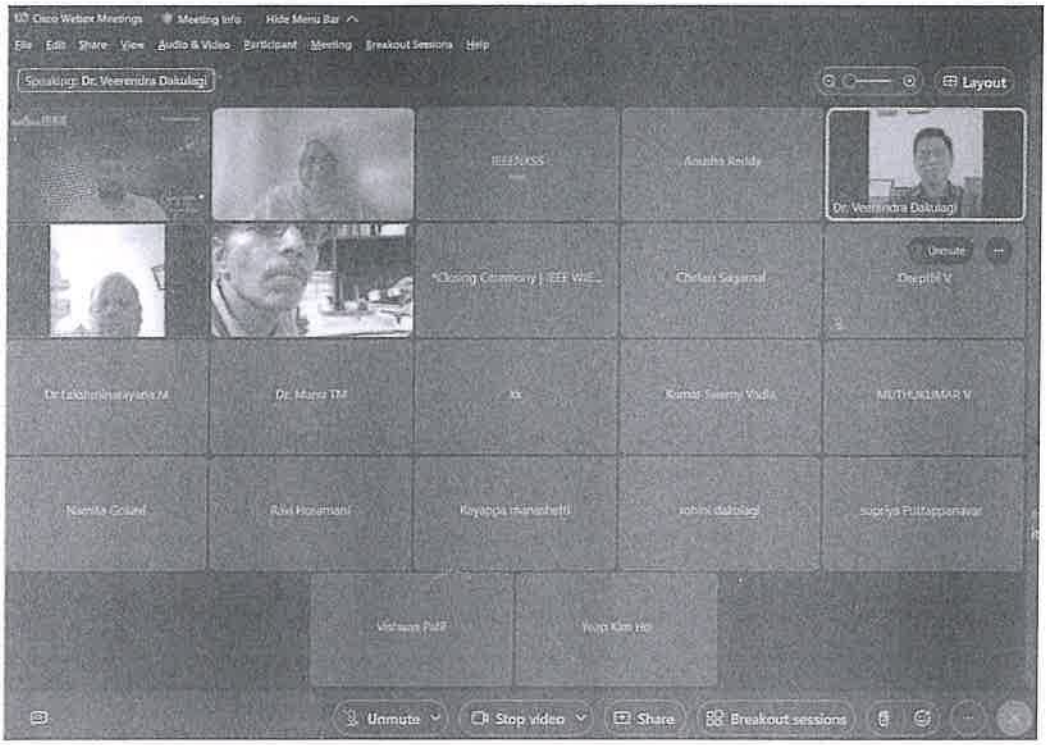

IEEE-GNDEC
Student Branch (STB96281)

IEEE
BANGALORE SECTION

GURU NANAK DEV ENGINEERING COLLEGE, BIDAR

IEEE CAS Student Branch Chapter

Report on one-day expert talk on "Effective Research Methodology and Startups & IPR" on 25-03-2022

On 25-03-2022, IEEE CAS Student Branch Chapter of GNDECB has conducted an expert talk on "Effective Research Methodology and Startups & IPR" to all the staff and students members of GNDECB. A total of 65 participants were actively participated in this event. Following points were discussed in the talk.

(1) Formulating the research problem

(2) Extensive literature survey;

(3) Developing the hypothesis

(4) Preparing the research design;

(5) Determining sample design

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(6) Collecting the data

(7) Execution of the project

(8) Analysis of data

(9) Hypothesis testing

(10) Generalizations and interpretation, and

11) Preparation of the report or presentation of the results, 1.e., formal write-up of conclusions

Snapshots' of this event are depicted below.

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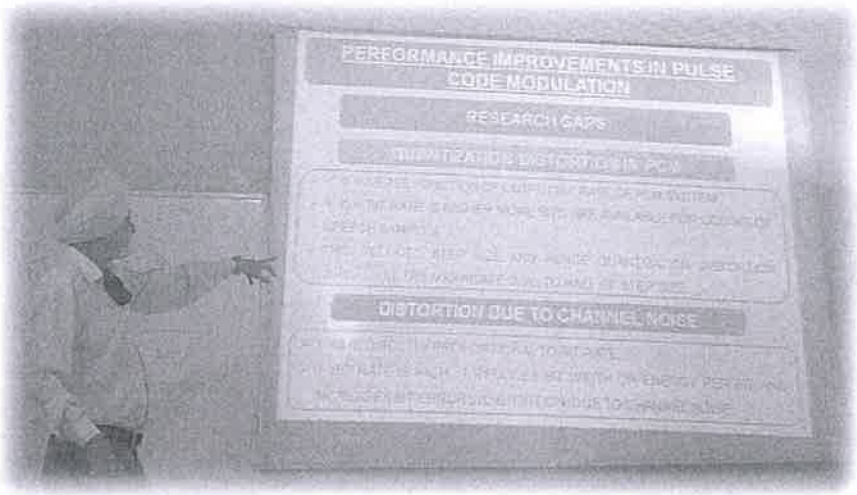
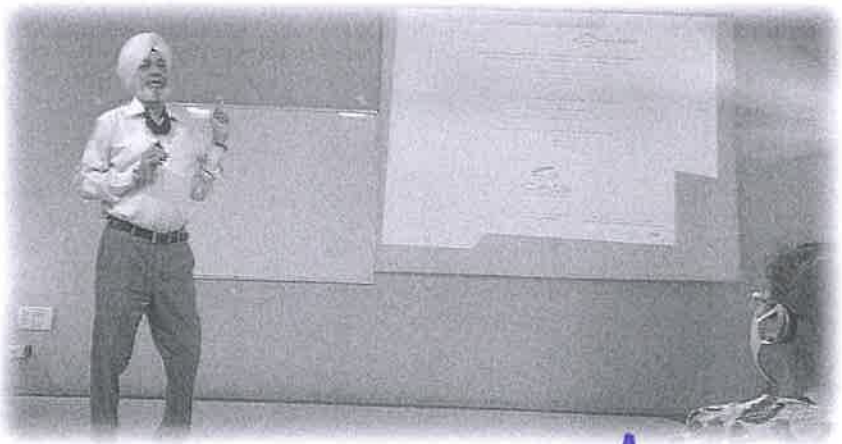
IEEE CAS Student Branch Chapter

Report on one-day expert talk on "Improvement in Pulse Code Modulation" on 22-02-2022

On Tuesday, 22-02-2022, Col. Dr. B.S. Dhaliwal, Director Academics of GND Group of Institutes has conducted an expert talk on "**PerformanceImprovements in Pulse Code Modulation"** to all the staff members of E&CE. A total of 32 faculty members along with I/c Principal (Dr. B.B. Kori) of GNDECB, Mrs. Reshma Kaurji, VCP of GNDECB, Mrs. Jasmineeth Kaur and HODs of all departments were actively participated in this event.

Snapshots' of this event are depicted below.





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PCM can be seen as an implementation of analog-to-digital conversion of analog signals providing a serial bit stream. This means that sampling applied to a continuous-time message gives a pulse amplitude–modulated (PAM) signal that is then quantized and assigned a binary code to differentiate the different quantization levels.

- PCM is widely used in digital communications given that:
- It is realized with inexpensive digital circuitry.
- It allows merging and transmission of data from different sources (audio, video, computers, etc.) by means of time-division multiplexing, which we will see next.
- PCM signals can be easily regenerated by repeaters in long-distance digital telephony.

Key outcomes of this expert talk are:

1. Understanding and analysis of Waveform Quantization and Compression.
2. Understanding and analysis of quantization distortion inPCM
3. Understanding and analysis of distortion due to channel noise
4. Analysis of sources of distortion in PCM
5. Analysis of quantization distortion.
6. Analysis of distortion due to bit violation as result of channel noise

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IEEE-GNDEC Student Branch

IEEE Circuits and Systems Society Student Chapter GNDECB in collaboration with ESRA VLSI Training Institute has organized one-day webinar on "**CAREER GUIDANCE IN VLSI**" on Sunday, 16th May 2021. The resource person of this webinar was Mrs. Gnana Prasuna. She is a training expert at ESRA VLSI Training institute, Bangalore. She has 5+ years of Industry experience, worked in QUALCOMM and now working as lead engineer in Thevtool (UK). She has 3+ years of teaching experience in RTL DESIGN.

More than 55 students have attended this webinar using the Google meet:
meet.google.com/cqa-mbid-qwh

Outcome of this webinar:

Students were able to have knowledge of the following aspects after this webinar:

What is exceptional about VLSI?

The field of VLSI is definitely a highly technical field. This field completely focuses on integrating millions of transistors into a smaller package. The knowledge of VLSI is utilized by almost all sectors of the economy today. VLSI companies manufacture chips in large quantities for use by electronic devices. These VSLI chips are found virtually in every device today. Whether it's inside your television or your mobile phone, chips are found everywhere. Whatever electronic device you own has at least a chip inside. They have become part of our everyday life. VLSI designs include amplifiers, filters, sensors, data converters, phase-locked loops, processors and power management devices etc.

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- **ASICs**: These ICs are designed for special purposes – they are designed to perform specific tasks. For example, image compression, signal filter, etc.
- **SoCs**: These are very high complex mixed-signal circuits. SoCs has both the analog and digital signals on one chip. Example of SoCs includes network processor chips and wireless radio chips all fall under SoCs.
- **Reconfigurable computing**: These are specially fabricated devices called FPGAs. These devices are programmed to act like normal electronics circuits. They do not require microcontrollers. They are designed to run with EEPROM inside.

Kinds of work you may encounter in the VLSI industry

Are you passionate as an electronics engineer? There are chances you will very high and enjoy fast growth in the industry. Making a mark for yourself won't be very difficult.

Some of the works you can do in the industry include:

- **Layout engineer:** working as a layout engineer, you will be given responsibility of**:** Designing the layout of digital and analog circuits of a chip. E.g., the design of oscillators, references, ADCs, DACs, PLLs, power management modules.
- **Physical design engineer:** as a **physical design engineer**, you are responsible for physical design of complex digital circuits such as ASICs and SoCs or sub-blocks.
- **ASIC verification engineer:** as a **ASIC verification engineer**, your responsibility to validate IPs and sub blocks of RTL code used in designing ASIC or SoC.
- **Test engineer:** You will be working on designs to test for noise, speed, and general performance. Your duty is to ensure that every design meets the required specification and standard.
- **RF engineer:** as a **RF engineer** you will be doing task of designing wireless modules, RF amplifiers, and antennas.
- **Embedded System Software Training:** Embedded System Software schooling path especially entered on giving theory cum hands-on realistic schooling in C Language, Data structures, Linux programming, Micro Controllers, Embedded Systems, Network Protocols, Kernel Basics and Device Drivers.

Career opportunities in the VLSI industry

Below is a list of career opportunities in the VLSI industry:

- AMS (Analog Mixed Signal) designer
- AMS verification engineer
- Layout design engineer
- ASIC front-end designer
- ASIC verification engineer
- Physical design engineer
- DFT engineer
- Application engineer technical support
- Board validation engineer
- Corporate Application Engineer (CAE)
- EDA/CAD engineer
- EDA tool validation engineer
- Fab/Foundry Engineer
- Field Application Engineer (FAE)
- FPGA Back-end verification engineer
- Front-end verification engineer
- IP design engineer Verification Engineers
- IP verification engineer
- Library developer
- The physical design verification engineer
- Product Application Engineer (PAE)
- Reliability Engineer

Who are the most suitable people for a VLSI career?

There are skills you need to develop if you will be working in the VLSI industry. A VLSI engineer is expected to understand the following:

- Physics of semiconductor devices.
- Probability
- Linear systems and random variables
- Circuit analysis
- Engineering mathematics (Laplace, Z transforms and Fourier)
- Engineering Electromagnetics.

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STUDENT CHAPTER - GNDECB

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ESRA
"Where Excellence Come first!!"

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IEEE Circuits and Systems Society Student Chapter of IEEE Student Branch GNDECB in Collaboration with ESRA VLSI Training Institute Organizes One-day Webinar on

Career Guidance In VLSI

Mrs. Gnana Prasuna
Lead Engineer, The vtool (UK)
5+ years of Industry Experience
(worked at Qualcomm
3+ years of Teaching Experience in RTL Design
Training Expert @ ESRA

On Sunday, 16th May 2021 @ 10:30 AM
Register here : http://forms.gle/4q5oRLub4VbLtkQ28

Dr. Veerendra D
IEEE GNDEC SB Counsellor

Miss Padma
Head @ ESRA

Dr. Md Bakhar
HOD , Dept. of E&CE

Dr. Ravindra E
Principal , GNDECB

Col. B.S. Dhaliwal
Director Academics

For more Details , Contact :

+91 7019066354
M A Muneeb
(Event Incharge)

+91 6303916169
Saisree
(Event Incharge)

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IEEE CAS Student Branch Chapter

On 26-11-2022, IEEE CAS Student Branch Chapter of GNDECB has conducted anDistinguished talk on "Research Pathway for Undergraduate and Postgraduate Students to students of GNDECB. The keynote speaker of this talk was Mr. Abdul K, Joint Ph.D Scholar IIT Hyderabad & Deakin University Australia. About 90 UG and PG students have actively participated in this event. Mr. Abdul K discussed undergraduate students should be inducted **in the second year** through 'professional skills workshops' that train them in basic skills such as writing research papers and reports, designing posters, conference presentations, networking with resources, identifying paper competitions, fellowships and graduate programmes, among others.They can also be asked to write mock papers on topics in the textbooks. **In the third year**, students can choose their area of interest and attach themselves with either an ongoing research or initiate one with the help of their mentors/instructors. However, the choice to participate in UG research should be voluntary and optional. **In the fourth year**, students should undertake writing their papers and submitting papers for conferences. There should be continuous capacity building of mentors by senior faculty or external resources, assuring high-quality mentoring to students.

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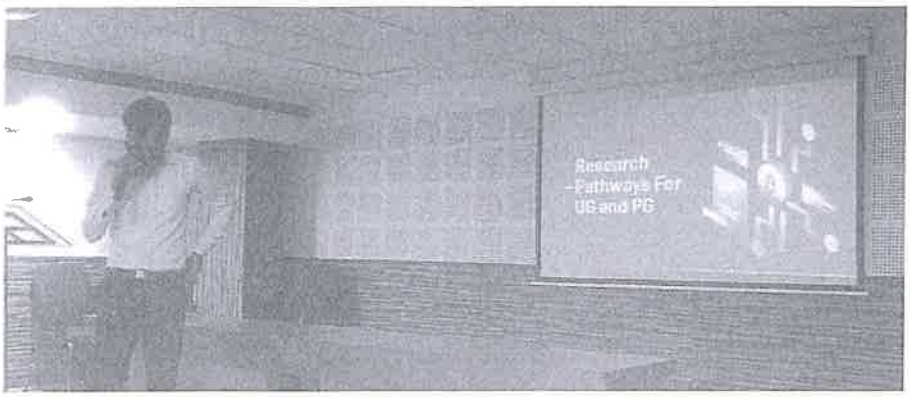

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IEEE CAS Student Branch Chapter

Oneday seminar on "Research Trends and Challenges in Science and Technology" was organized on 17-09-2022. The resource person of this seminar was Prof. S. N. Mulgi, Professor, Department of P.G. Studies and Research in Applied Electronics, RUSA Nodal Officer, Gulbarga University, Kalaburagi. About 118 faculty and students have actively participated in this event. He discussed on the following technological areas.

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1 3D Printing Molecules

2 Adaptive Assurance of Autonomous Systems

3 Neuromorphic Computing

4 Limits of Quantum Computing:

5 Ethically Trustworthy AI

6 Beyond 5G Hardware

7 New Approaches in IOT

8 Cognitive Augmentation

9 Regenerative Medicine

10 Drug Discovery & Manufacture Using AI

11 Bioinformatics & AI in 'Omics'

12 Cellular Senescence & Life Extension

13 Bio Robotics/Bionics.

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IEEE CAS Student Branch Chapter

One day seminar on "Career Guidance" to the B.E., 5th and 7th semester was organized on 27-09-2022. The resource person of this seminar was Mrs. Maheshwari Patil, Alumnus GNDECB and VTU M.Tech 5th Rank holder. About 80 students have actively participated in this event. She discussed career choice is a portrayal of oneself in the world of work that has identified the specific occupation that one could perform best in relation to one's existing personality traits. It involves the person's creation of a career pattern, decision-making style, integration of life roles, values expression, and life-role self-concepts. Participation in career guidance activities in college provides students with the necessary awareness, knowledge, and skills required in the world of work. It is a strategy for providing occupational orientation to students to become aware of what is contained and required in a career of one's choice that matches their interests and abilities.

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IEEE CAS Student Branch Chapter

One day webinar on "Organizing the Thoughts and Results Towards a Possible Journal Publication: the Lifecycle" was organized on Saturday, Nov 12, 2022. **Dr. Chandrakanta Kumar Senior Scientist, ISRO, Project manager for Chandrayaan-1 & Project Director of Chandrayaan-2.** About 60 students and staff have actively participated in this event. https://meet.google.com/vfb-sxkz-fes.

He discussed when an author decides to submit a manuscript for publication, that manuscript begins its life cycle, going through many phases as it is checked, refined and adjusted.

Phase 1: Conception and birth.

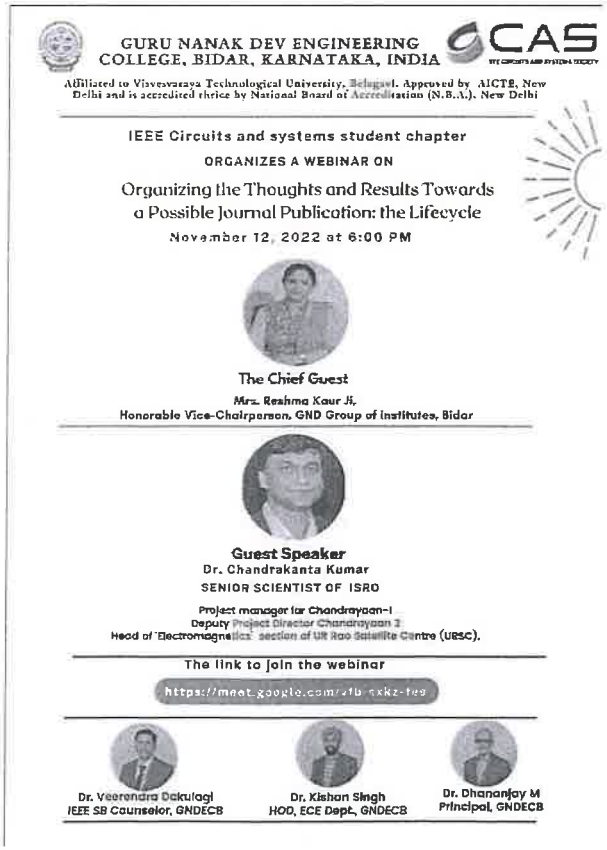
Phase 2: Submission.

Phase 3: Reviewers.

- Accept without revisions (rare)
- Request minor revisions (such as adjusting tables and figures, rewriting sections)
- Request major revisions (could involve repeating experiments)
- Reject

Phase 4: Production and publication.

Phase 5: Dissemination and archiving.



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IEEE BANGALORE SECTION

GURU NANAK DEV ENGINEERING COLLEGE, BIDAR

IEEE CAS & ITS Student Branch Chapter

One day IEEE/ACM Distinguished Lecturer On Neoteric Frontiers in Cloud, Edge, and Quantum Computing was conducted on 6thJanuary 2023 at Venue: Guru Nanak Bhavan, GNDEC, Bidar, Karnataka. The keynote speaker of this talk was Dr. Rajkumar Buyya, Redmond Barry Distinguished Professor and Director of the Cloud Computing and Distributed Systems Laboratory, the University of Melbourne, Australia&CEO, Manjrasoft Pvt. Ltd., Melbourne, Australia. About 210 students and faculty have actively participated in this event. This keynote presentation covered (a) 21st century vision of computing and identifies various IT paradigms promising to deliver the vision of computing utilities; (b) innovative architecture for creating elastic Clouds integrating edge resources and managed Clouds, (c) Aneka 5G, a Cloud Application Platform, for rapid development of Cloud/Big Data applications and their deployment on private/public Clouds with resource provisioning driven by SLAs, (d) a novel FogBus software framework with Blockchain-based data-integrity management for facilitating end-to-end IoT-Fog/Edge-Cloud integration for execution of sensitive IoT applications, (e) experimental results on deploying Cloud and Big Data/IoT applications in engineering, and health care (e.g., COVID-19), deep learning/Artificial intelligence (AI), satellite image processing, and natural language processing (mining COVID-19 research literature for new insights)on elastic Clouds, (f) QFaaS: A Serverless Function-as-a-Service Framework for Quantum Computing, and (g) directions for delivering our 21st century vision along with pathways for future research in Cloud and Edge/Fog computing.

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2)GNDEC has come into MOUs with the following Univerisities:

UniversitiTeknologi PETRONAS (UTP)

UniversitiTunku Abdul Rehaman (UTAR)

The areas of collaboration include:

Research
Faculty exchange
Joint publication
Student exchange
Internship program

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MEMORANDUM OF UNDERSTANDING

BETWEEN

UNIVERSITI TEKNOLOGI PETRONAS

AND

GURU NANAK DEV ENGINEERING COLLEGE, BIDAR, KARNATAKA, INDIA

UNIVERSITI
TEKNOLOGI
PETRONAS

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THIS MEMORANDUM OF UNDERSTANDING (hereinafter referred to as the "MoU") is made and entered into this day of 26th July 2021

BETWEEN: INSTITUTE OF TECHNOLOGY PETRONAS SDN. BHD. [Company No. 199501023672 (352875-U)], a company incorporated in Malaysia and having its registered address at Tower 1, PETRONAS Twin Towers, Kuala Lumpur City Centre, 50088 Kuala Lumpur (hereinafter referred to as "**ITPSB**");

AND: GURU NANAK DEV ENGINEERING COLLEGE, affiliated to Visvesvaraya Technological University (VTU), Belagavi Karnataka (VTU/ACA-LIC/2020-21/SO/10010/9), recognised by All India Council for Technical Education (1-7004940635/2020/EOA) located at Mailoor, Bidar, Karnataka, India (hereinafter referred to as the "GNDEC").

(ITPSB and GNDEC are hereinafter collectively referred to as "the Parties" and individually as "Party").

WHEREAS:

A. ITPSB, a subsidiary of PETRONAS, owns and manages Universiti Teknologi PETRONAS (hereinafter referred to as "UTP"), a private higher learning institution established under Private Higher Educational Institutions Act 1996 located at Bandar Seri Iskandar, Perak.

B. GNDEC is a Guru Nanak Dev Engineering College, Bidar, a premier center of Technical Education, was established in August, 1980 by the Prabandhak Committee, Gurudwara Sri Nanak Jhira Saheb, Bidar as per the Govt. of Karnataka Order No.ED 150 TEC 79, dated 8th August, 1980 located at Mailoor, Bidar, Karnataka.

C. The Parties desire to establish a collaboration to enhance their respective scientific, academic, technical and engineering competencies and to develop beneficial programmes pursuant thereto (hereinafter referred to as the "Collaboration").

D. The Parties have accordingly agreed to enter into this MoU to outline the understanding of the Parties in relation to the scope and objectives of the Collaboration and the respective rights and responsibilities of the Parties thereto.

NOW THEREFORE, the Parties hereby agree as follows:

1. SCOPE OF THE COLLABORATION

1.1 The Parties shall, at their discretion hereto, collaborate in the following areas:

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a) Academic Collaboration
- Joint organization of seminars, symposium, conferences and public lectures.
- Visiting Professor or Adjunct Lecture as part of the initiative on sharing of knowledge and expertise.
- Conducting and delivering short courses
- Developing joint degree programme for students, specializing in the areas of common interest.

b) Research Collaboration
- Joint Research and Development activities which may include sharing of facilities and equipment, and application of research grants.
- Joint Supervision for undergraduate and postgraduate students.
- Joint Publications of research articles and promoting social responsibility, exchange of publications, academic materials and other information.

c) Mobility Collaboration
- Staff Mobility Programme (including sabbatical, post-doctoral works, exchange or research attachment)
- Student Mobility Programme (including exchange, research attachment and summer programme)
- Student Internship Programme.

d) Any other activities that the Parties deem mutually beneficial.

In the event the Parties mutually agree to pursue any of the above mentioned activities, a separate written document shall be entered into to detail out the roles and obligations of the Parties.

1.2 Each Party shall use all means reasonably available to it subject to ordinary budgetary and financial constraints so as to ensure successful implementation of the Collaboration and the Parties shall use their best endeavour to collaborate in good faith to the best interest of all Parties.

2. CONFIDENTIALITY

2.1 The Parties agree that the Collaboration may involve the disclosure of certain confidential information of the Parties respectively. For the purpose of this MoU, the term "Confidential Information" refers to any and all information including but not limited to information pertaining to curriculum, courses, syllabus, teaching materials, research activities and technical information made available by a Party ("Disclosing Party") to the other Party ("Receiving Party") during the course of the Collaboration. All "Confidential Information" shall be marked or identified as "CONFIDENTIAL" in writing and in a conspicuous manner at the time it is disclosed to the Receiving Party.

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4. DURATION, TERMINATION AND WITHDRAWAL

4.1 Duration

a. This MoU shall come into effect upon signing by the Parties and remain in force for a period of five (5) years. The Parties may, by a three (3) month written notice to the other before expiry of the MoU, apply to extend this MoU on mutually agreed terms failing which this MoU shall lapse and shall be of no further effect and neither Party shall have any further claims against the other thereafter.

b. Without prejudice to the provisions in (a) above, the Parties may in the course of implementation of the terms of this MoU, execute a formal Collaboration Agreement or any other such written agreements in respect of any developments and/or expansion to the scope of the Collaboration arising from the MoU.

4.2 Termination and Withdrawal from the MoU

a. Either Party may terminate or withdraw from this MoU for any reason whatsoever by providing to the other Party a three (3) month written notice of its intention to terminate or withdraw from this MoU.

b. Upon termination of this MoU, neither Party shall be liable to the other in respect of any claims, damages, costs or expenses of any nature except for those rights arising from Clause 2 herein before provided.

5. COST AND EXPENSES

5.1 Unless otherwise specified in writing, each Party shall bear its own costs and expenses incurred in preparing, executing and implementing the collaboration under this MoU.

5.2 Each Party shall bear its own solicitor's costs in the preparation and stamping of this MoU.

6. DISCLAIMER

Each Party shall be solely responsible for its own acts and omissions (and the acts and omissions of its directors, employees, consultants and other agents) and no Party shall have the authority, nor shall it purport to act for, or legally binding, the other Party in a transaction with a third party except as authorised in writing by the Parties.

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7. GOVERNING LAW

This MoU shall be governed by and construed in accordance with the laws of Malaysia.

8. RELATIONSHIP OF THE PARTIES

Nothing contained in this MoU shall be construed as establishing or creating between the Parties a relationship of master-and-servant or of principal-and-agent. The relationship between the Parties shall be that between equal independent contractors.

9. NON-BINDING OBLIGATIONS

9.1 The Parties do hereby agree, declare, covenant and undertake that this MoU outlines the understanding between the Parties with regard to the subject matter herein and may be subject to change or variation at the absolute discretion of the Parties herein, in the course of implementation of the collaboration, provided always that such discretion is exercised only upon mutual consent of the Parties.

9.2 The Parties do further hereby agree, declare, covenant and undertake that except where it is specifically provided herein, the MoU is not intended to create any legal obligations and shall not be legally binding on the Parties hereto.

10. NAME, OFFICIAL EMBLEM AND LOGO

10.1 Neither Party shall use, nor permit any person or entity to use the name, acronym, official emblem, logo trade mark (or any variation thereof) or other Intellectual Property (hereinafter referred to as "Brand Materials") that is/are identified with or belongs to the other Party on any publication, document, paper, audio or visual presentation, or for publicity purposes.

10.2 Any use of the Brand Materials for the purposes stated in Clause 10.1 above shall first obtain the written consent of the other Party and shall comply with all reasonable instructions as to the use of the other party's Brand Materials.

11. MISCELLANEOUS

11.1 The official language to be used for execution and cooperation under this MoU shall be English.

11.2 Any amendment or modification to this MoU shall be made upon mutual consent of the Parties vide a written notice executed by the duly authorised representative(s) of each Party hereto.

11.3 A waiver of any of the rights or remedies available to any Party hereto shall not be valid and effective unless expressed in writing and executed by the duly authorised

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IN WITNESS WHEREOF, the Parties hereto have caused this Memorandum of Understanding to be executed by their respective duly authorised representatives on the day and year first above written.

For and on behalf of
INSTITUTE OF TECHNOLOGY PETRONAS SDN. BHD.

By	:	.....
Name	:	Prof.Dr. Mohamed Ibrahim Abdul Mutalib
Designation	:	Vice Chancellor and CEO

In the presence of	:	.....
Name	:	Zaimizi Hamdani @ Hj. Othman
Designation	:	Chief Strategy Officer

For and on behalf of
GURU NANAK DEV ENGINEERING COLLEGE, INDIA

By	:	.....
Name	:	Dr.Ravindra Eklarker
Designation	:	Principal

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BIDAR

Guru Nanak Dev Engineering College * BIDAR-585403 * Karnataka

In the presence of	:	.....
Name	:	Dr. Pradeep Kumar Singa
Designation	:	Associate Professor

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