



# NEWS LETTER

## The Institution of Engineers (India)

### SILCHAR LOCAL CENTRE

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Vol. : XII

15th September, 2021

Issue : I

## 54<sup>th</sup> Engineers' Day



September 15 is a memorable day in the annals of the Institution and the engineering community in particular in this country. Because on this day 160 years ago, one of the greatest son of India- Sir Mokshagundam Visvesvaraya, the towering personality, an eminent Indian Engineer and statesman in the history of

Indian engineering was born to Srinivasa Sastry and Venkachamma a Telugu couple family from Andhra Pradesh, at Muddenhalli village in the Kolar district of Karnataka in 15<sup>th</sup> September 1861. To commemorate his contribution to the society, this day is celebrated as "Engineers' day", so that the present generation can pay tributes and revere the Engineer-statesman.

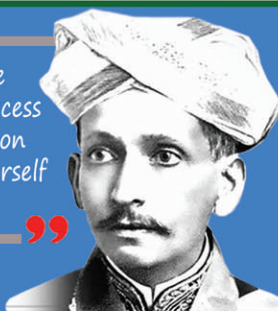
In recognition of his service to the national development, Sir MV was honoured by presentation of the country's highest award "Bharat Ratna" in the year 1955 Sir M V was honoured with honorary membership of London Institution of Civil Engineers He was made a Knight commander of the order of the Indian Empire etc. He was awarded several honorary doctoral degrees like D.Sc, LLD, D.Litt from various Indian universities and fellowship of the Indian Institute of Science, Bangalore. Some of them are

- 1) Visvesvaraya Technological University, Karnataka
- 2) Visvesvaraya Institute of Advanced Technology
- 3) University Visvesvaraya College of Engineering, Bangalore etc
- 4) Visvesvaraya polytechnic College

He worked ceaselessly throughout his life to bring fruits of advanced science and technology to the doorsteps of the common man. He also served several important committees constituted by the Government of India and Bombay. Sir MV was rightly called the "Father of modern Mysore state" now Karnataka. Sir M Visvesvaraya was a great Engineer, Statesman, planner, administrator. He is a role model for all engineers.

“ No one person can shape the life of another. your success and happiness depends upon your own self. Think for yourself and have a plan of life. ”

- Sir M. Visvesvaraya



## From Chairman's Desk



At the very outset, I convey my heartfelt & warm good wishes on the auspicious occasion of 54<sup>th</sup> Engineers' Day. It is my privilege to extend respect, gratitude and prestigious honour to the members who rendered their services for relentless journey of this Local Centre.

This year 2021, on 15<sup>th</sup> September, Silchar Local Centre is going to celebrate the day as Engineers' Day through online to commemorate the birthday of Engineer Sir Mokshagundam Visvesvaraya a "Bharat Ratna" for his legendary works in the various field of engineering activities and his outstanding contribution to the society too.

I also express my sincere thanks to all members for giving me an opportunity to serve this great Institution as Chairman for the session 2019-2021. The Institution of Engineers (India) is the largest multi disciplinary vibrant engineers' Professional body established in 1920 and incorporated under Royal charter on 9<sup>th</sup> Sept. 1935 by the then His Majesty of King George V.

Our mission is to promote the general advancement of engineering, science & technology and to provide technical activities, increasing membership strength, technical short term training programs, organizing Seminar relating to the technical know-how and awareness programs etc. As on roll upto 31<sup>st</sup> March, 2021, we have 332 corporate members of this Local Centre.

It is my pleasure that this year the IE(I), Silchar Local Centre has published the first issue of the News Letter for the session 2019-21. The theme of this year as selected by National Council of the Institution is "Engineers for Skill Development & Employment in combating COVID".

We have seen that engineers today are working to ensure the network of inter communicating system that are able to accommodate the massive increase generating the work culture from home with infrastructure facilities.

Engineers are working for gearing up to help tackle the pandemic : Design and manufacture respiratory equipment for novel coronavirus which urgent demand for respiratory ventilators. The doctors and nurses are working on the frontline can't stay home. So it is absolutely crucial that the PPE kit to keep them safe from virus, medical equipment like N95 face masks, disposable gloves and surgical gowns, developing touchless sanitizer, and several technologies to resist virus. In this way, some of the engineers in our country are engaged in combating COVID-19 with their skill and are also engaged in generation of employment.

As you know, after taking over the charge as chairman of Silchar Local Centre, we are facing the pandemic, for which We could not perform all the activities of this Local Centre on physical mode which we intended to do. We have to switch over to Virtual mode (Google Meet) for organizing the activities . We have started the 2<sup>nd</sup> phase of construction of new building. In the coming days, we have to start the work like staircase with lift provision.

I appeal to the corporate members to come forward & share valuable suggestion with active participation for highlighting our Local Centre at a greater height in the region.

Long Live The Institution of Engineers(India).

Long Live Silchar Local Centre.

With warm Wishes & regards.

Er. Gautam Dutta Choudhury, MIE  
Chairman



## Honorary Secretary Desk

I like to thank all the members of Silchar Local Centre for their kind hearted cooperation during our tenure from Sept 2019 till date. This year, Silchar Local Centre is celebrating the 54<sup>th</sup> Engineers' Day, to commemorate the birthday of the legendary engineer, Bharat Ratna Sir M Visvesvaraya. We have been successful in publishing this News letter to mark this occasion with active support of the society. In recent past, The Institution of Engineers (India) has celebrated the 100 years of its relentless journey of glorious contribution for building the nation.



The SLC has done quite a good amount of work since its inception viz. 1990. During our tenure, we could not work to our satisfaction due to lockdown etc. However, we have done some activities such as part construction of the New building (around 450 sqft), major renovation of Grade IV quarter, social activities etc.

We pray to the almighty that more young and dynamic personalities would come forward and flourish the activities of the SLC to a new height by its flying wings including membership growth

Let members donate generously for overall development of the centre - specially the Rural Development centre and the new building.

Long live Institution of Engineers (India).

Long live Silchar Local Centre.

**Er. Biswajit Purkayastha, MIE**  
Honorary Secretary

### PRIORITY TASKS AHEAD

I) Construction of IEI  
Multi-storied Building (New Buildg.),  
Silchar Local Centre

II) **Repairing and Renovation of  
Rural Development Centre** (Old Building)  
Silchar Local Centre



Join

**The Institution of Engineers (India)**  
**SILCHAR LOCAL CENTRE**

## Local Committee Members of IE(I), Silchar Local Centre for 2019-2021

### CHAIRMAN

Er. Gautam Dutta Choudhury, MIE

### HONORARY SECRETARY

Er. Biswajit Purkayastha, MIE

### AGRICULTURE

Er. Prasanna Kumar G V, MIE

### CHEMICAL

Er. Haridas Dutta, MIE

### COMPUTER

Er. Arnab Paul, AMIE

### ELECTRICAL

Er. Rajeeb Dey, MIE  
Er. Subhash Chandra Choudhury, MIE

### ENVIRONMENT

Er. Ratna Jyoti Dutta Chowdhury, MIE

### ELECTRONICS

Er Prangopal Paul, AMIE

### MECHANICAL

Er. Sadhan Nath, MIE  
Er. Pratip Das Gupta, MIE

### PRODUCTION

Er. Debamalya Ghose, AMIE

### CIVIL

Er. Saugata Shome, MIE  
Er. Pinak Pani Nath, MIE  
Er. Sujit Kumar Baishnab, MIE

### EX-OFFICIO MEMBERS

Er. Nikhil Ranjan Choudhury, FIE, *Imm. Past Chairman*  
Er. Deepak Kumar Kundu, FIE, *Imm. Hon. Secretary*  
Dr. S K Kakoty, FIE, *Chairman, Assam State Centre*  
Er. Nuruz Zaman, FIE, *Hony. Secretary, Assam State Centre*

### CONSTRUCTION SUB-COMMITTEE FOR THE YEAR 2019-2021

Er. Gautam Dutta Choudhury, Chairman  
Er. Biswajit Purkayastha, Honorary Secretary  
Er. Saugata Shome, Convener  
Er. Pratip Das Gupta, Member

### FINANCE SUB-COMMITTEE FOR THE YEAR 2019-2021

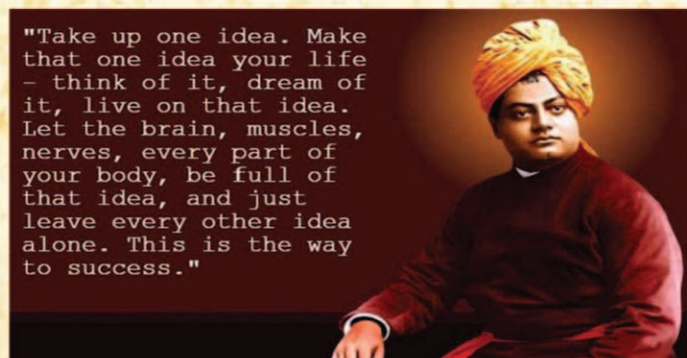
Er. Gautam Dutta Choudhury, Chairman  
Er. Biswajit Purkayastha, Honorary secretary (Convener)  
Er. Nikhil Ranjan Choudhury, Member & Internal Auditor  
Er. Pran Gopal Paul, MIE, Member  
Er. Pannalal Choudhury, AMIE, Invitee Member  
Er. Subir Kumar Roy, MIE, Invitee Member

# TECHNICAL ACTIVITIES CONDUCTED BY THE SILCHAR LOCAL CENTRE CELEBRATION OF 53<sup>rd</sup> ENGINEER'S DAY

## Theme: Engineers for a Self-Reliant India

The 53rd Engineer's Day was observed virtually at Silchar Local Centre of The Institution of Engineers (India) on 15<sup>th</sup> September 2020 through Google Meet to commemorate the birth day of Sir Mukshagundam Visvesvarayya as per the programme enlightened in the invitation letter. The inauguration of the ceremony was started with e-diya lighting. The meeting was presided over by Er. Gautam Dutta Choudhury, Chairman, Silchar Local Centre. The Chief guest of the function was Dr. Sivaji Bandyopadhyay, Director, National Institute of Technology, Silchar and the Guest of Honour was Er. Amalendu Bikash Paul, Former Chief Engineer of Assam Public Health Engineering Dept., Govt of Assam, and Regional Director, INREM Foundation (Assam). At the outset, Er. Gautam Dutta Choudhury, Chairman of the Centre welcomed Dr. Sivaji Bandyopadhyay, the Chief guest & Er. Amalendu Bikash Paul, the Guest of Honour, corporate members of the IE(I), SLC, non-member practicing engineers, engineering students and researchers who registered their name for the programme attended the 53<sup>rd</sup> Engineers' Day virtually through Google meet. In the welcome speech, the Chairman of the local centre highlighted on the theme "Engineers for a Self-Reliant India". He enlightened that technology will play a major role in achieving Atma Nirbhar Bharat Abhiyan or self Reliant India Mission. He also mentioned that self Reliant India is based on five pillars- Economy, Infrastructure, System, Demography and Demand and emphasized that the five 'Is' namely- Intent, Inclusion, Investment, Infrastructure and Innovative are very important for a self-reliant India. All total 47 numbers of people registered their name and attended the meeting. A short video presentation was shown on the life and achievements of Bharat Ratna Sir M. Visvesvarayya.

Dr. Sivaji Bandyopadhyay, Director of NIT, Silchar emphasised about the Engineers for a Self-Reliant India through a power presentation. He discussed the consumer centric globalization, humanity centric globalization and self-reliant India does not mean that we will look inwards, or become an isolationist country. Moreover, he stressed on the national priorities like sustainable development goals, Digital India, Make in India, Industry 4.0, SMART Society 5.0, Skill India, Start-Up India with enlightening of 5 Pillars of Self-reliance.



### INVITATION LETTER OF THE GOOGLE MEET

**PROGRAMME**

3:45 pm: Inauguration of the ceremony with e-diya lighting

3:47 pm: Welcome Address by the Chairman

3:50 pm: Short video presentation on the life and achievements of Bharat Ratna Sir M. Visvesvarayya

3:53 pm: Address by the Dignitaries

4:00 pm: TECHNICAL SESSION Presentation on the theme "ENGINEERS FOR A SELF-RELIANT INDIA"

4:10 pm: Vote of Thanks by Hony. Secretary

**The Institution of Engineers (India)**  
SILCHAR LOCAL CENTRE : SILCHAR

Request the pleasure of your gracious presence in the celebration of  
**53<sup>rd</sup> Engineers' Day 2020**  
to commemorate the birthday of  
**Bharat Ratna Sir Mokshagundam Visvesvaraya**  
On **15th September, 2020 (Tuesday)**  
virtually through Google Meet platform from 3:45 pm as per programme.  
**Prof. (Dr.) Sivaji Bandyopadhyay, Director, NIT Silchar**  
has kindly consented to grace the occasion as **Chief Guest**.  
**Er. Amalendu Bikash Paul, Chief Engineer (Retd.), P.H.E Deptt., Govt. of Assam**  
has kindly consented to grace the occasion as **Guest of Honour**.

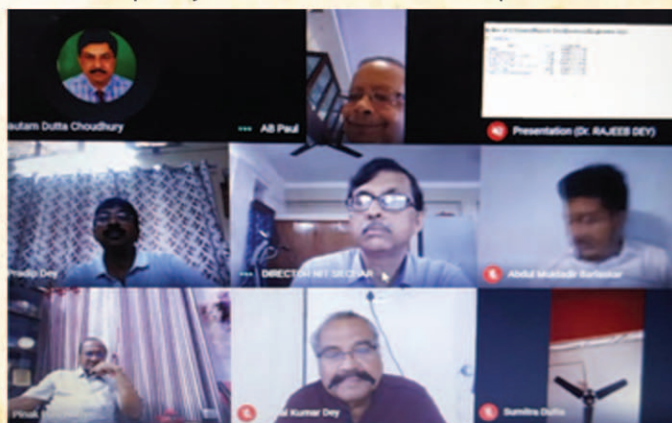
Registration Link: <https://forms.gle/eYsJFUmtW5gnNRM7>

Google Meet Link: <https://meet.google.com/mj-fyvt-uxc>

Er. Gautam Dutta Choudhury  
Chairman

Er. Biswajit Purakayastha  
Hony. Secretary

Furthermore, Er. Amalendu Bikash Paul, a renowned engineer from the North-East, also the Guest of honour of the function, revealed that India will be self-Reliant only if our engineers have more practical knowledge than theoretical. He mentioned the examples of various activities of water supply & sanitation sector from the PHED and also he said that self-reliant will be possible if proper investment is done in rural development including basic research in technology and supporting private corporation, entrepreneur, infrastructure of education policy matter and skill development.



At the end of the programme, Er. Biswajit Purkayastha, Honorary Secretary of the SLC offered the vote of thanks to the electronic-audience. The celebration came to an end with the National Anthem.

## OBITUARY

*In our Hearts & Memories Forever  
for their contribution to the development of IE(I),  
Silchar Local Centre*

- **Dr. M. C. Borgohain – First Chairman**
- **Dr. N. C. Ganguly – Second Chairman**
- **Er. H. V. Sundaran – President Ad hoc Committee**
- **Er. J. K. Dutta Gupta – Member**
- **Er. Ranjan Kumar Das – Member, Ad hoc Committee**
- **Er. Nikhilesh Paul – Member**
- **Er. Pranabendu Dutta Choudhury (Kajal) – Member**
- **Er. Sankar Sen – Past Hony. Secretary**
- **Er. Bijoy Prasad Singh, Member**
- **Er. Naresh Chandra Nath, Member**
- **Professor D N Bhattecharjee, Member**

## CELEBRATION OF NATIONAL SCIENCE DAY 2020

The National Science Day was celebrated at the Auditorium Hall of Silchar Polytechnic at 11 am on 28 January 2020. The day is celebrated jointly with the Student' Chapter of Silchar Polytechnic & Silchar Local Centre of The Institution of Engineers (India). Er Gautam Dutta Choudhury, Chairman, The IE(I), Silchar Local Centre inaugurated the programme with lighting the lamp along with other dignitaries viz., Principal, Silchar Polytechnic Er. Arunangshu Deb Roy, Er. N R Choudhury, Past Chairman of IE(I), SLC, Er. Hanif Uddin Mandol, Advisor, Students' Chapter of Silchar Polytechnic & Er. Biswajit Purkayastha, Hony. Secretary, SLC.

Eleven (11) nos. of students' of Silchar Polytechnic participated in delivering power point presentation of different topics like "Advanced Building Materials", "Construction Equipment" from Civil Engineering Branch, "Future of Electrical Vehicle in India", "Smart Grid - The future Grid" from Electrical Engineering Branch, "Artificial Intelligence", "Quantum Computer" from Electronics & Telecommunication Engineering Branch, "Future of Transport System", "Nano Electrical Mechanical System" etc. from Mechanical Engineering Branch.



The Chairman and the other dignitaries presented a certificate of appreciation along with a memento to each of the students presented their PPT.

Er. N R Choudhury, Past Chairman, IE(I), SLC offered vote of thanks on behalf of iE(I) and a student of Silchar Polytechnic offered vote of thanks from Silchar Polytechnic Student Chapter.

The programme was ended with NATIONAL ANTHEM.

## OBSERVANCE OF FOUNDATION DAY



### Celebration of 31<sup>st</sup> Foundation Day on 28-01-2020

Silchar local Centre started its journey on 28<sup>th</sup> January' 1990 and to commemorate, every year the day is celebrated in a befitting manner. The activities started by hoisting the Institution's flag at 9am in presence of members present and in the evening this auspicious day was celebrated by lighting the lamp at IE(I), Silchar

Local Centre. The Chairman of the Centre welcomed all the members and dignitaries present and narrated the history of inception of the Silchar Local Centre. Er. Angshu kr. Ray, Er. D P Roy, Er. Subhash Chandra Choudhury, Er. N R Choudhury, all past Chairman of the Centre, the present Chairman, Er. Gautam Dutta Choudhury, including members present went down the memory lane and



narrated with nostalgic memories how this Local Centre was established in 1990 .

On this auspicious day, the Past Chairman ,Er. D P Roy, Er. N R Choudhury. and Past Honorary Secretary, Er. B Das Gupta, Er. D K Kundu (of session 2015-17, 2017-19) Er. A K Ray , Er. Subhash Chandra Choudhury, both Past Chairmen, Past Hony. Secretary Er. P P Nath including newly joined corporate (who joined in 2019) of the Silchar Local Centre were felicitated with Uttiaro & memento to mark the occasion. Er. Biswajit Purkayastha, Hony. Secretary of the Centre Offered the Vote of thanks. The function ended with the National Anthem.

## OBSERVANCE OF FOUNDATION DAY 2021

Silchar local Centre started its journey on 28<sup>th</sup> January 1990 and to commemorate, every year the day is celebrated in a befitting manner. The activities started by hoisting the Institution's flag at 9am in presence of members present. The members present went down the the memory lane. The Chairman of the Centre ,Er. Gautam Dutta Choudhury, Er. Haridas Dutta, Er. N R Choudhury both Past Chairman took part in the discussion and narrated how this Centre was established in 1990. Er. Biswajit Purkayastha, Hony. Secretary, Silchar Local Centre proposed the vote of thanks. The programme ended with the National Anthem.



## Celebration of 150th Birth Anniversary of Mahatma Gandhi



150<sup>th</sup> Birth Anniversary of Mahatma Gandhi was Celebrated in a befitting manner on 2<sup>nd</sup> October 2019 at The Silchar Local Centre, Silchar. The theme to commemorate the auspicious day was "Say no to Plastic". The occasion was graced with the presence of Chairman, Er. Gautam Dutta Choudhury & Honorary Secretary, Er. Biswajit Purkayastha along with the members present.

Past Chairman of the centre Er. Haridas Dutta, Er. S R Swami, Er. Nikhil Ranjan Choudhury participated on the theme for discussion to make the programme a grand success

## OBSERVANCE OF REPUBLIC DAY

### Celebration of Republic Day at our Institution Premises, 2021

The Institution of Engineers (India), Silchar Local Centre celebrated the Republic Day on 26<sup>th</sup> January, 2021 with full dignity and honour like every year. The National flag was unfurled by the Chairman Er. Gautam Dutta Choudhury in the premises of the Silchar Local Centre in presence of the members Er. Biswajit Purkayastha, Hony. Secretary, Er. N R Choudhury, Er. D K Kundu, Er. Pratip Das Gupta, Er. Sudip Das and the National song was sung. The importance of observing the 26<sup>th</sup> January was discussed by the Chairman, Hony Secretary and the members present.



## OBSERVANCE OF WORLD ENVIRONMENT DAY



## Lecture Meeting on Computer Engineering in Medical Diagnosis using Artificial intelligence and Machine Learning

Dr. Saroj Kumar Biswas, Asstt. Prof., Deptt. of CSE, NIT, Silchar delivered a lecture on the topic "Computer Engineering in Medical Diagnosis using Artificial intelligence and Machine Learning" on 22<sup>nd</sup> February 2020 at 7 pm at IE(I), Silchar Local Centre. Er. Gautam Dutta Choudhury, Chairman offered the welcome address.

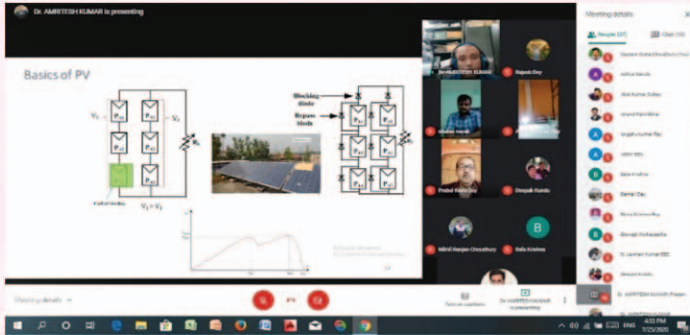
Er. Biswas, delivered his talk on Artificial Intelligence and Machine Learning which are being used in every field of engineering from robot to drone and in the bio-medical engineering. It is also used in the medical field like detection of diabetes, heart disease etc. Image of the retina of the patient is taken and some parameters are measured by computer engineering technique like Image Processing. He stressed that their research work show that BMI (Body Mass Index) of the patient is the most



responsible feature for diabetes patient. This way we can utilize the computer engineering in medical field.

After his deliberation Er. Biswajit Purkayastha, Hony. Secretary offered vote of thanks. The meeting was ended with National Anthem.

## Virtual Lecture Meeting on "Emerging Opportunities and Challenges in Grid/Off-Grid PV Application for Developing EV Charging Infrastructure"



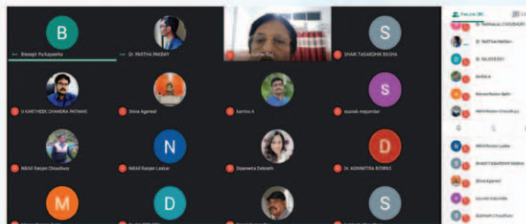
Dr. Amrutesh Kumar, Asst. Professor, Electrical Engineering, NIT Silchar delivered a lecture on "Emerging Opportunities and Challenges in Grid/Off-Grid PV Application for Developing EV Charging Infrastructure" on 25<sup>th</sup> July 2020 at 4 pm virtually through Google meet.

At the outset, Er. Gautam Dutta Choudhury, Chairman offered the welcome address. The speaker discussed about the fundamentals of EV charging power sources, various standards available for EV's charging, international and national status. Next, he emphasized about the challenges with PV fed EV charging system, basics of PV, off-grid architectures of the EV charging system and grid-connected architectures of the EV charging system. At last some experimental results for multi-bay EV charging system and smart parking were presented. The Question and answer/Feedback session was conducted at the end of the presentation.

Er. Rajeeb Dey, Core committee member of the Local Centre offered vote of thanks .The meeting ended with the National Anthem.

## Virtual Lecture Meeting on "Emerging Technologies : Natural Language Processing & Artificial Intelligence"

Dr. Partha Pakray, Asstt. Professor, Computer Science & Engineering, NIT, Silchar delivered a lecture on "Emerging Technologies : Natural Language Processing & Artificial Intelligence"



on 10<sup>th</sup> Nov' 2020 at 6-30 pm virtually through Google meet. Er. Gautam Dutta Choudhury, Chairman of offered the welcome address. The meeting was started with Sri Sri Ganesh Bandana The speaker Dr. Pakray discussed the area of computer science and artificial intelligence concerned with the interaction between computers and humans in *natural language* which is so called **Natural language processing (NLP)** .and discussed the use of **NLP** to create systems like speech recognition, document summarization, machine translation, spam detection, named entity recognition, question answering, autocomplete, predictive typing and so on which helps computers communicate with humans in their own language and scales other language-related tasks. For example, NLP makes it possible for computers to read text, hear speech, interpret it, measure sentiment and determine which parts are important. He refers to the way humans use **words** to communicate ideas and feelings, and how such communications are processed and understood. Natural Language processing is considered a difficult problem in computer science. It's the nature of the human **language** that makes NLP difficult while humans can easily master a **language**, the ambiguity and imprecise characteristics of the **natural** languages. Natural language processing is

a form of artificial intelligence gives computers the ability to read, understand and interpret human language. It helps computers measure sentiment and determines which parts of human language are important

For example, reducing energy use to create a net-zero energy location effectively doubles capital planning ability. 2).Better Predictability and demand forecasting through Artificial Intelligence Enhances Preventative Maintenance Planning. 3). Automated Reporting and Self-Optimization Identifies Potential Problems Before they Occur. If something does go wrong, artificial intelligence enables automated reporting and creation of work orders, including entering data into a computerized maintenance management system (CMMS), when integrated properly. 4).Artificial Intelligence Can Integrate With virtually any Connected System. 5).Artificial Intelligence Improves Occupant Experiences by Identifying Potential Risks. Poor facilities management does more harm than just eat away at profitability; it can result in health problems, like severe allergies or uncomfortable work conditions. Artificial intelligence can identify these risks in the same manner as identifying potential equipment malfunctions.

The Question and answer/Feedback session was conducted at the end of the presentation. At the end of the programme, Er. Biswajit Purkayastha, Honorary Secretary of the offered the vote of thanks to the electronic-audience.The celebration came to an end with the National Anthem.

Besides these we have conducted lecture meetings on : (I) "Artificial Pancreas : The need of Engineers" 17-11-2019 by Er. Rajeeb Dey, Asst. Professor, NIT Silchar (ii) "Role of IT in Supply Chain Management" 23-01-2020 by Er. Nirupam Choudhury AMIE, Silchar (iii) "Quality Control Measurement" 06-12-2020 by Er. Subhash Chandra Choudhury (IV) Ayurvedic Tips For a Healthy BODY 28-12-2019 by Er. Biswajit Purkayastha (V) Touchless Sanitizer Machine 17-01-2021 by Er. Nirupam Choudhury (VI) "ABC OF EARTHQUAKE" in NorthEast India & Adjoining Himalayas 13-02-2021 by Er. Subhash Chandra Choudhury, (VII) Total Productive Maintenance 21-03-2021 by Er. Pratip Das Gupta (VIII) ABC's of Corona Virus,Logistics & Cold Chain of Covid-19 Vaccines 25-04-2021 by Er. Subhash Chandra Choudhury.

## Social Activities of Silchar Local Centre during Lock Down for COVID-19 on 10<sup>th</sup> May 2020

During the 1<sup>st</sup> phase of lock down, Some members of Silchar Local Centre was interested and came forward and wanted to arrange for relief work. The members gave away rice, dal, potato and others essential commodities etc.



Distribution of Relief to the Lower middle Class families on the eve of COVID-19 at our IE(I) Silchar Local Centre on Contribution of a few members on 10th May 2020

## Inauguration of New Building (Phase-II) on 3.7.2020



Inauguration of 450 sqft room of new building (2nd phase)



Eastern side of meeting room



NE corner of meeting room



Attached Toilet



Members observing Toilet



Queue for observing Toilet



289th meeting going on the same day (3.7.2020)



## Inauguration of Grade IV Quarter (after major renovation) on 3.7.2020



Entrance of Grade IV quarter



Bedroom of Grade IV quarter



Kitchen of Grade IV quarter

## New Education Policy 2020 for Atmanirbhar Bharat



### Prof. Rajat Gupta

Chairman,  
Mizoram State Centre

The New Education Policy 2020 (NEP 2020) is a roadmap for self-reliant India. It is aimed at developing holistic and well-rounded individuals equipped with the key 21<sup>st</sup> century skills. Multidisciplinary, flexibility and autonomy are central to this reform. There is freedom to choose:

- What to learn
- How to learn
- When to learn

With the fast-changing employment scenario and global ecosystem, it has become imperative for the learners not only to learn, but more importantly to learn how to learn. The NEP 2020 emphasizes on how to think critically and solve problems, to be creative and to innovate and adapt, to develop all aspects and capabilities of learners and to make education more well-rounded and useful to face the 21<sup>st</sup> century challenges.

The earlier segregation of streams, rather regimented, did not allow for any formal interface among the sciences, the social sciences and the humanities. To integrate engineering

courses with arts and humanities in order to move towards holistic and multidisciplinary education would surely and certainly enthuse every thinking being. This is a holistic approach and should lead to the blossoming of various human attributes- intellectual, aesthetic; social, physical, emotional and moral- in an integrated manner.

Our ever-expanding economy requires workers and professionals with diversified and specialized skill sets. Ironically, vocational education is considered inferior to the mainstream education. The NEP 2020 aspires to dismantle this status hierarchy and aims to integrate vocational education with mainstream education. Starting with vocational exposure in the middle and secondary classes, quality vocational education will be integrated smoothly into higher education. This will ensure that every individual learns at least one vocation and is able to develop a sense of “the dignity of labour” and respect for various vocations. This will also enable India to tap our demographic dividend and address the skill-deficient of the economy. The NEP 2020 envisions that the development of vocational capabilities will go hand in hand with the development of academics.

The NEP 2020 is visionary and comprehensive to make India-Atmanirbhar Bharat. However, its success lies in its effective implementation. And hence, the onus lies on us. We are answerable to the 21<sup>st</sup> century generation. The sooner we realize this, the better it is.

Reference: National Education Policy 2020, Ministry of Education, Government of India, [https://www.education.gov.in/sites/upload\\_files/mhrd/files/NEP\\_Final\\_English\\_0.pdf](https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf)

## WATER & SANITATION in INDIA in the light of MDG & SDG INITIATIVE



### Ratna Jyoti Dutta Chowdhury, MIE

The IE(I), Silchar Local Centre

The Millennium Development Goals (MDGs) were eight international development goals for the year 2015 that had been established following the Millennium Summit of the United Nations in 2000, following the adoption of the United Nations Millennium Declaration. These were based on the OECD DAC International Development Goals agreed by Development Ministers in the “Shaping the 21<sup>st</sup> Century Strategy”. The Sustainable Development Goals (SDGs) succeeded the MDGs in 2016.

All 191 United Nations member states, and at least 22 international organizations, committed to help achieve the following Millennium Development Goals by 2015:

1. To eradicate extreme poverty and hunger
2. To achieve universal primary education
3. To promote gender equality and empower women
4. To reduce child mortality
5. To improve maternal health

6. To combat HIV/AIDS, malaria, and other diseases
7. To ensure environmental sustainability<sup>[1]</sup>
8. To develop a global partnership for development<sup>[2]</sup>

The goal number 7 was of relevance for water and sanitation sector

Millennium Development Goal 7: ensure environmental sustainability

Target 7C: By 2015, halve the proportion of people without sustainable access to safe drinking water and basic sanitation

The world has now met the MDG target relating to access to safe drinking-water. In 2012, 90% of the population used an improved source of drinking-water compared with 76% in 1990. Progress has however been uneven across different regions, between urban and rural areas, and between rich and poor.

With regard to basic sanitation, current rates of progress are too slow for the MDG target to be met globally. In 2012, 2.5 billion people did not have access to improved sanitation facilities, with 1 billion of these people still practicing open defecation. The number of people living in urban areas without access to improved sanitation is increasing because of rapid growth in the size of urban populations.

The progression from the MDG to SDG (Sustainable Development Goals) was a gradual one when the world body



dwelt upon reaching the desired goals set for humanity. The Sustainable Development Goals or Global Goals are a collection of 17 interlinked global goals designed to be a “blueprint to achieve a better and more sustainable future for all”. The SDGs were set up in 2015 by the United Nations General Assembly and are intended to be achieved by the year 2030.

Water scarcity affects more than 40 percent of people, an alarming figure that is projected to water supplies are affecting every continent

#### Goal Targets

- By 2030, achieve universal and equitable access to safe and affordable drinking water for all
- By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
- By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

- By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
- By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
- By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies
- Support and strengthen the participation of local communities in improving water and sanitation management

The steps taken by the Govt of India in reaching these goals as stated have been gradual, calibrated and effective. While coverage was the main issue during the early part of the century after MDG was accepted and India was a signatory to the declaration, the thrust of the present government at the centre has been aptly coined under the caption - HAR GHAR JAL, meaning providing household water tap connection to every household in the country. In addition the initiative in the sanitation sector that began with Total Sanitation Campaign (TSC) in 2009 through many avatars has reached in the SBM (Swachh Bharat Mission) that provided sanitary toilets to every individual household. These are and were all part of the grand exercise envisaged under MDG and SDG Goals.

## Engineers for Skill Development & Employment in combating COVID



### Mr. NIRUPAM CHOUDHURY

B.Tech, MBA, AMIE  
The IE(I), Silchar Local Centre

The worldwide impact of the COVID-19 virus has been sudden and dramatic impacting profoundly on health and wellbeing, daily life and the economy around the world. Currently, there is no effective vaccine for tackling the ongoing COVID-19 pandemic caused by SARS-CoV-2 with the occurrence of repeat waves of infection frequently stretching hospital resources beyond capacity. Already reeling under an economic slowdown, many industries are now fighting a battle of survival in the times of COVID-19. At the same time, the demand for front line workers, or COVID warriors as they are called, is rising rapidly. Besides Health care and frontline workers engineers also have a huge role to play in both the short term and in the immediate future. The Covid-19 pandemic is predicted to positively impact the personal protective equipment market. The increasing implementation of strict rules related to the safety of employees in the workspace is greatly heading towards the growth of the overall market during these unprecedented times. Furthermore, PPE companies are involved into manufacturing of personal protective products to help people prevent this lethal disease. These factors are estimated to

propel the demand for PPEs across the globe, all through this pandemic period.

The crisis has accelerated the levels of digitization to help reduce avoidable physical interactions. This has meant finding ways to reinvent work and, in some cases, a partial disruption of jobs and changes in the way workers perform them. Demand for PPEs has reached unprecedented levels as COVID-19 has spread globally and governments have sought to prepare and respond. Supply availability has been hampered by a number of issues, including export and travel restrictions by some producing countries. Hence being a part of engineering fraternity I have tried to do something that might turn out to be useful for mankind in this hour of pandemic.

I have developed this portable Touchless Sanitizer Dispenser machine which is an effective and affordable one. The circuit uses 5v power supply under 1A which can be delivered by a mobile phone charging adapter. The machine shown here can hold 1800ml of water based sanitizer. Moreover the volume of the container can be customized according to demand. This machine is ideal for use in Hospitals, Offices, Schools, Colleges, Banks, Bus terminals, Restaurants and other public places.



Currently some of the machines are installed in various places of Barak valley region, Assam which includes :

Silchar Medical College & Hospital, Siva Sundari Narisikshasram & Ante-Natal clinic, Lions EYE Hospital, Holy Cross H.S. School, SAINT CAPITANIO SR.SEC.SCHOOL, Oriental High School, Lalit Jain Commerce college, Saraswati Vidya Niketan, Kanchakanti Vidya Mandir Udharbond, Don Bosco School, Vivekananda Kendriya Vidyalaya Silchar, Ramanuj Vidya Mandir, Vivekananda Kendriya Vidyalaya Borojalenga, Deputy Commissioner's office, St. Joseph's School Badarpur, Vivekananda Kendriya Vidyalaya Badarpur, Ramakrishna Mission Sevashrama, UCO Bank Silchar Br., Ujjala foods factory, PHE DIV II office and many more.

In addition, various industries including petrochemical, manufacturing, pharmaceutical, laboratory, and forestry are benefiting from the usage of eye & hand protection products. The pharmaceutical segment is anticipated to exhibit revenue of \$17.5 million by 2026 and rise at a CAGR of 10.6% in the projected timeframe. The shutting of commercial establishments due to the second wave of Covid-19 has rendered several people jobless leaving them financially vulnerable. However Despite initial fears that the pressure would be too great, you discover that this new way of working could be a blueprint for the long term. That's what leaders of many companies around the globe are finding as they respond to the Covid crisis.

## PLASMA CUTTING



**Er. Sadhan Nath, MIE**  
The IE(I), Silchar Local Centre

PLASMA CUTTING is a high-tech cutting method that uses an ionized, focused jet of gas to slice through thin sheet metal. An internal, high-voltage electrode in the cutter rapidly heats a compound gas mixture to over 20,000 centigrade when switched on. Shielding gas is used as a propellant and barrier to focus and move the induced plasma from the ionization chamber. The ionized, superheated, concentrated beam of plasma then melts and blasts any metal it touches. A clean, sealed cut is made each time.

### WHAT IS PLASMA

Plasma is a state (fourth state) of matter like a solid, liquid or gas. Adding heat to material causes the molecules in it to vibrate or move more quickly. When a solid is heated, the molecules start to vibrate more vigorously. Eventually the solid turns to a liquid and the molecules actually move around and collide with each other. As more energy or heat is added the motion becomes faster and more vigorous still and eventually the molecules move so quickly and collide so energetically (violently) that they separate and form a gas. If still more energy is added to the gas the molecules travel faster and thus collide with each other more violently and the gas changes to a plasma.

An atom consists of a positively charged core and is surrounded by negatively charged electrons. The molecules in a gas can be either individual atoms or collections of such atoms that are very closely connected. When plasma is formed, the collisions between the molecules eventually get so violent that, at first, the molecules will break up into the individual atoms and eventually some of the atoms will separate from, or lose, some of their electrons from their outer shell. When a critical number of atoms lose electrons the gas changes to plasma.

Plasma is an electrically conductive gas. The ionization of gases causes the

Creation of free electrons and positive ions among the gas atoms. When this Occurs, the gas becomes electrically conductive with current carrying Capabilities. Thus, it becomes plasma.

### Plasma in Nature

One example of plasma, as seen in nature, is lightning. Just like a plasma torch, the lightning moves electricity from one place to another. In lightning, gases in the air are the ionization gases.

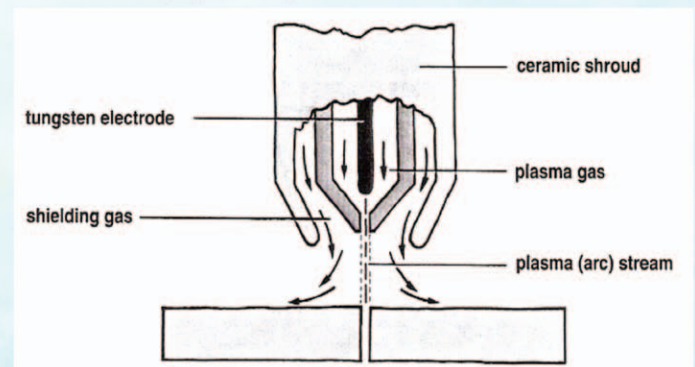
### Plasma Arc Cutting

Accurate cuts can be made in stainless steel and non-ferrous metals such as

Aluminum by plasma arc cutting. The cuts are made by a high temperature, high velocity gas jet generated by constricting an arc between a tungsten electrode and the component. The heat from the arc melts the metal and the gas jet removes the molten

Metal from the cut. The arc operates in an inert inner shield, whilst an outer shield provides protection for the cut surface. Argon, helium, nitrogen and mixtures of these gases are used for both the inner and outer shields. Plasma arc cutting is characterized by fast cutting speeds and is mainly used inmechanised systems.

The cutting is accompanied by a high noise level which can be reduced by operating the torch under water.

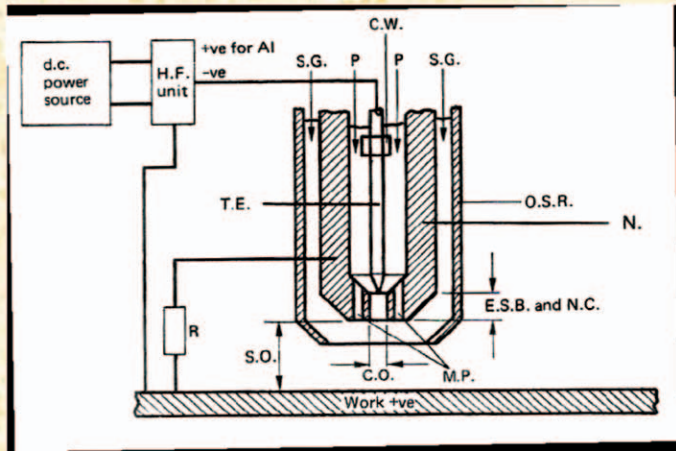


*Plasma ARC Cutting*

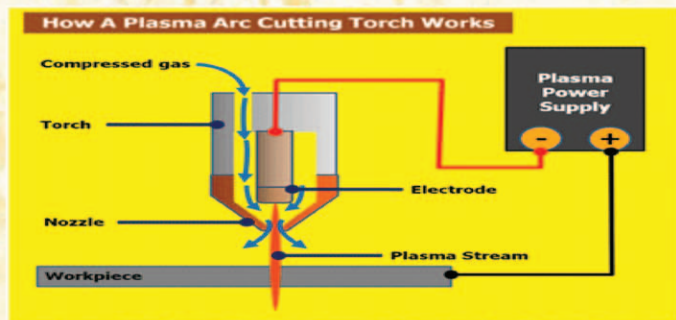
As for other arc processes plus there is a danger of severe electric shock from The high open circuit voltage, up to 400 V for cutting. Dangerous fumes and Noxious gases are formed when using nitrogen mixtures so it is important to have

adequate fume extraction. The intense arc requires a darker shade of filter glass, at least 16 EW (BS 697). Intense high-frequency noise is possible when Cutting, especially with non-transferred arcs, of levels 110 dB which requires ear muff protection.

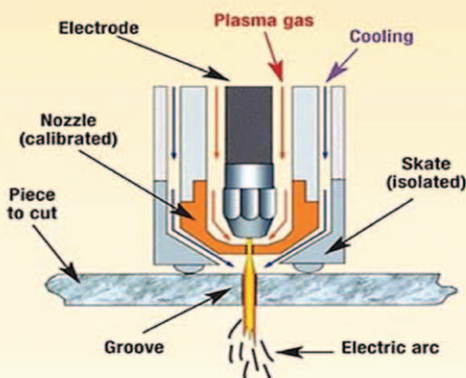
**Component Parts of a Plasma ARC Torch**



- C.W. = Cooling water, nozzle and electrode may be water cooled
- P = Plasma gas varies with different materials.
- S.G. = Auxiliary shielding gas, usually Argon + 1 to 15% H<sub>2</sub>
- T.E. = Tungsten electrode 60°
- O.S.R. = Outer shielding ceramic to prevent double arcing
- R = Resistance limiting pilot arc current (non-transferred)
- E.S.B. = Electrode set back distance
- N.C. = Nozzle constriction
- C.O. = Orifice constriction improves velocity  
2.5 mm dia., 250 amps max.,  
3.00 mm dia., 350 amps max.
- S.O. = Stand-off distance approx. 6mm
- M.P. = Multi-ports shape the arc plasma and allow increased welding speed
- H.F. = High-frequency discharge ignites the arc
- N. = Copper Nozzle



**PLASMA CUTTING PROCESS**

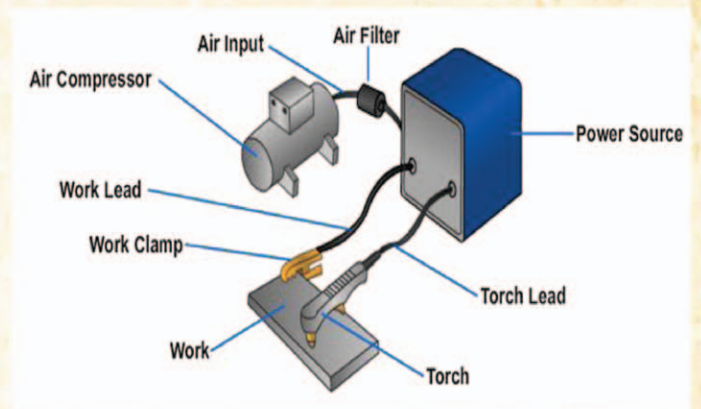


Plasma cutters work by sending an electric arc through a gas that is passing through a constricted opening. The gas can be shop air, nitrogen, argon, oxygen, etc. This elevates the temperature of the gas to the point that it enters a 4th state of matter.

Argon-Hydrogen Mixtures are generally used for cutting stainless steel and aluminum. They produce a clean, high quality cut face. Argon-Hydrogen is required for mechanized cutting of any material more than 3 inches thick. This mixture also provides an excellent gas for plasma gouging on all materials.

**EQUIPMENT and CONSUMABLES**

A pilot arc between the electrode and the constricting tip initiates the plasma arc Process. The tip is connected to ground through a current-limiting resistor and a pilot arc relay contact in the torch assembly. One of two methods, either a high frequency Generator connected to the electrode and tip or an internal contact start, initiates the Pilot arc. The welding power supply then maintains a low current arc inside the torch.



Basic PAC setup.

Ionized orifice gas from the pilot arc is blown through the constricting tip orifice by a compressed gas. This forms a low resistance path to ignite the main arc between the Electrode and the work piece. When the main arc ignites, the pilot arc relay may be opened automatically to avoid unnecessary heating of the constricting tip, which helps extend the life of the tip and electrode.

System Comparisons		
	Oxy-Fuel	Plasma
Cuts non-ferrous metals	Rough Cut	
Gouges non-ferrous metals		
Requires no metal preheating to cut		
Heats for bending, metal shaping		
Cuts thin metal with least distortion		
Greatest portability		
Greatest steel thickness cut capacity		
Cuts cast iron	Rough Cut	
Produces narrowest kerf		
Produces least amount of slag		
Has lowest up-front cost		
Least consumable costs		
Requires electricity		
Requires compressed air		
Requires oxygen & fuel gas		
Precision cuts non-ferrous metals		
Fastest grate cutting capability		

# Evolution of Seismic Design Philosophy of Structures



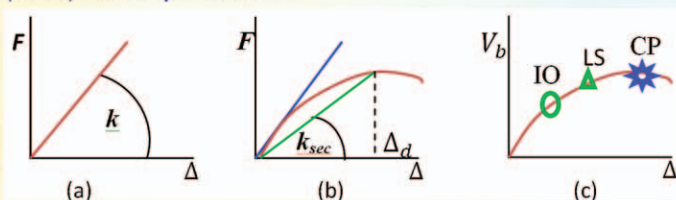
**Prof. Satyabrata Choudhury**

Department of Civil Engineering,  
NIT Silchar

**Introduction :** Seismic design concept first started with the guess of a Japanese engineer that the seismic action generated a lateral force which was about 10% of the weight of the structure. Even after a century has passed and lot of sophistication introduced in codes, the magnitude of the force beats almost about that value. However, now we know the dynamics of computing the seismic design force. It appears that the first codification of seismic design force was in 1927 when Uniform Building Code (UBC) adopted a seismic design force proportional to the weight of the structure. In 1952 the engineers realized the importance of time period in computation of seismic design force. Also, during this time the response spectrum concept got developed.

**Force-Based Design (FBD):** Codal design is called as FBD as the core idea and parameter in design is force. Codes compute this force as a function of seismicity level, importance of the structure, period of the structure which dictates spectral acceleration, ductility (in the form of Response reduction factor) and, seismic weight of the structure. This force goes by the name *base shear*. Such base shear is now distributed over the height of the structure in some prescribed pattern, and the design is carried out. Codal FBD continues till today.

**Displacement-Based Design (DBD):** It was found with time that the structures designed with stringent codes also get damaged or failed during strong earthquakes. Gradually the engineers understood that damage is more related to displacement (linear displacement, rotation, twist, shearing etc.) than to force. Now displacement was taken as core parameter of design in the DBD method. Because of the relation, Force = stiffness × deflection ( $F = k\Delta$ ;  $k$  is initial stiffness), for linear elastic system, the FBD and DBD carries same meaning and gives the same result (Fig.1(a)). But for nonlinear systems, for a damage state, the force deformation relation is given by  $F = k_{sec}\Delta$ , where,  $k_{sec}$  is secant stiffness (Fig. 1(b)). Qi and Moehle (1991) first reported DBD.



**Fig. 1** (a) Linear system response (b) Nonlinear system response (c) Pushover curve and performance levels.

**Performance-Based Design (PBD):** Once the displacement was incorporated as the core design criterion, various displacement parameters were set as target design criteria. PBD aims at designing structure for some predefined target

design criteria (set by owner or designer) under some specified hazard (= seismicity) level. In codal design the hazard level is fixed by the code (typically  $Z/2$ , where  $Z$  is Zone factor). In PBD, the hazard level is open ended one. ATC-3-06 (1978) had put the PBD on a quantifiable footing. The target design criteria include interstorey drift, plastic rotation, crack width etc. A small damage reflects small plastic rotation and large damage is associated with large plastic rotation of members. A building with small amount damage is called Immediate Occupancy (IO) building. Similarly, we have Life Safety (LS) building where damage is not threatening life of the occupants. This is intermediate level of damage. On the far side we have Collapse Prevention (CP) buildings, where damage is of large scale but the building does not collapse. If we make a plot between base shear (arising out of applied lateral force) and roof displacement of the building, the curve is called *Pushover curve*. In such curve, the IO, LS and CP are shown in Fig. 1(c). It may be mentioned that in all such families of DBD, we have to use displacement spectra, in place of codal acceleration spectra.

**Direct Displacement-Based Design (DDBD):** This is an off shoot of DBD where the target design displacement (displacement for which design is done; this corresponds to some damage state;  $\Delta_d$ ) is obtained directly by using some equations of dynamics along with certain building properties like floor mass and shape profile. The multiple degree of freedom system is converted to an equivalent single degree of freedom system (ESDOF) and its properties are evaluated. The base shear is obtained as:  $V_b = k_{sec}\Delta_d$ . This base shear arising out of damage state (reflected by  $k_{sec}$  and  $\Delta_d$ ) is the realistic design base shear. DDBD was introduced by Priestley (2000). Later on the DDBD for RC frame building was given by Pettinga and Priestley (2005) and for dual frame-shear system by Sullivan et al. (2006). It may be mentioned that available DDBD method takes only one target design criterion, namely, interstorey drift. Also it cannot suggest any member size.

**Unified Performance-Based Design (UPBD):** The limitation of DDBD is that it can consider only the *drift* as the target design criterion. But performance level is equally important design parameter. These two parameters were incorporated in UPBD method. The method was first introduced by Choudhury (2008). UPBD method for RC frame building was given by Choudhury and Singh (2013) and UPBD method for dual system was given by Choudhury (2008). The calculation of column size in this frame-work was given by Mayengbam and Choudhury (2014). The method has also been extended in bridge pier design (Banerjee and Choudhury, 2020) and Steel frame building (Anil and Choudhury, 2021). The UPBD method not only accommodates two design criteria (drift and PL in terms of plastic rotation) but also gives member size in the beginning of the design, thus avoiding iteration.

**Conclusion:** The search for better and more rational design methods is always on. With enrichment in our understanding, the design methodology evolves. In this brief write up, a glimpse of the arena has been highlighted.

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## TIME MARCHES BUT MEMORY STAYS



**Mr. Sanjoy Prosad Das Purkayastha**

Past Chairman,  
The IE(I), Silchar Local Centre

My emotions triggered no bounds knowing the fact that you still consider me as one of your fraternity when I am totally out and detached from the activity of Silchar Local Centre, The Institution Of Engineers (India) due to my relocation to Kolkata and invited me to present a writing for the "News Letter" of Silchar Local Centre. Being a member of the Institution and specially in the period of corona pandemic where life has become a bubble and everyday is a bonus, I take this opportunity to share my reminiscences regarding the formation of the Silchar Local Centre for the cognizance of the members.

It was the month of November 1989. I still remember that day, when I received a telephonic call from my Principal Mr. H.V. Sundaran. It was Sunday and I was leisurely taking my lunch. At that time I received the call from Mr. H. V. Sundaran, Principal Silchar Polytechnic, and he asked me "why are you not coming?". I was surprised, "Where would I go?". In reply, he told me to come immediately to Silchar Polytechnic as there is a General Meeting with the engineering fraternity of different engineering department regarding the formation of Ad hoc committee of Local Centre of the Institution of Engineers (India) and they were waiting for me. I was not aware of the meeting but I couldn't defy the call of my Principal. After the preliminary discussion in the meeting, the formation of the Ad hoc Committee was decided. Then and there, Principal Mr. H. V. Sundaran proposed my name as Secretary of the Ad hoc Committee and instantaneously, Prof. A.T. Chakraverty, H.O.D. (Mechanical Engg.) of Silchar Polytechnic seconded this proposition. Without giving me any scope to state my problems, and thus, with the other members from engineering fraternity of different engineering department, the Ad hoc Committee was formed and Principal Mr. H.V. Sundaran was selected as the President. Later I came to know that Mr. Pinak Pani Nath of P.W.D. and Mr. Probal Kanti

Dey of P.H.E. had requested our Principal Mr. Sundaran to organize a meeting for the said purpose. Accordingly, he took the initiative for the meeting and the Ad hoc Committee was formed. Initially, the office works and committee meetings were carried out from Silchar Polytechnic, Meherpur, before the establishment of the Local Centre.

As a Secretary of the Ad hoc Committee, my first duty was to know how many engineers of Barak Valley and South Assam were the members of the Institution of Engineers (India) as there was a criteria that to establish a Local Centre, at least 100 corporate members were required to get the sanction. But there were only 36 members found residing within the periphery of Barak Valley and South Assam which was the geographical boundary of the Silchar Local Centre. To achieve that goal, the following members helped us a lot and ultimately, we got the sanction from the Head Office at Kolkata.

- Mr. M. N. Madhava - G.M. ONGC, Cachar Project
- Mr. S. P. Das Gupta - Chief Executive, Cachar Paper Mill
- Mr. P. K. Das - Professor, Silchar Polytechnic
- Mr. K. B. Sinha - Professor, Silchar Polytechnic
- Late Mr. Ranjan Kr. Das - Executive Engineer, Flood Control
- Late Mr. Pranabendu Dutta Choudhury (Kajal) - Engineer, Flood Control
- Mr. P. P. Nath - Engineer, P.W.D
- Mr. Monoj Das - Professor, NIT Silchar

The Silchar Local Centre was inaugurated on the 20th of January, 1990 by Dr. Amitabha Bhattacharjya, past President of the Institution of Engineers (India) in the Cachar Club of Silchar. He was the Chief Guest of the function. Deputy Commissioner Mr. J. N. Sharma, IAS presided over the event. Chairman of Assam State Centre, Prof. R. N. Chowdhury and Mr. H. V. Sundaran (who was at that time, the Principal of Assam Engineering Institute, Guwahati) were also present to grace the occasion. Later, Mr. J. N. Sharma, D.C. Cachar helped us to get the land for Silchar Local Centre.

As I was deeply associated with IE(I), Silchar Local Centre since its birth and prenatal period, I feel it's the high time to pay some tribute to those unsung legends whose contribution from background made the Silchar Local centre what it looks like today. Their long lasting efforts towards construction of the building and development of the centre need to be mentioned at the same time. It may not be in the knowledge of newly elected members who are very fresh and young. They might not even see the light of the day



Pic showing Dr. Amitabha Bhattacharjya, FIE, lighting the lamp.

when our Silchar Local centre was born. So, it is our duty to recollect and reiterate some knowledge to them about the contribution tendered by those legends towards the centre

Today, I am trying my level best to go the past and recycle a few of my memories about those members whose attachment for the institution and contribution towards building its local centre laid a milestone for present era. Those persons who silently put their precious time and energy towards process of allotment of land for construction of the building of Silchar Local Centre. The very first name that comes to my mind is the Legend "Late Jyotirindra Chandra Dutta", popularly known as "Kalada", founder of popular and prestigious newspaper from Silchar "Dainik Prantojyoti". I still remember the day when we, the team of Silchar Local Centre, approached him for some help in connection with allotment of land for the Silchar Local centre. He instantly agreed to our objective and started writing columns on the front page of that popular newspaper. It was his vibrant effort which played like a catalytic agent towards allotment of land for Silchar Local centre. He was a missionary in this Endeavour.

The next name that comes to my mind is Mr. Aashu Singh Rathore, Executive Engineer of BRTF. He played a vital role for the construction of Silchar Local Centre, IE(I). His help and inspiration motivated us to start the construction at that time. Similarly, the help rendered by Er. Ranadhir Bose of Ukilpatty, Silchar and Er. Sowmitra Sankar Dutta of Nag Naha Lane, Silchar are worth mentioning for the construction of building and boundary fencing of the land.

There was altogether some whole hearted inspiration from Late Bimalangshu Roy, Ex-MLA, Silchar who donated Rs.50000.00 from his MLA fund on those days and motivated us to start the construction of the building of Silchar Local Centre. Practically, there was a dearth of fund or money for Silchar Local Centre at that time. So, the amount, he contributed was a big one for us. To add to that, all the members of the then Executive Committee contributed an amount of Rs.5000.00 each towards accumulation of fund for local centre. There were many members even outside of executive committee who provided monetary help as per their capacity. Later, members started to make contact with various companies whose contribution gave some strength to our fund. It was all these efforts which when combined together helped us to start the construction of the building of Local centre. The first building, named as Rural

Development Centre, was the conglomeration of all these efforts, dreams and wishes. I wish, none of their dream go in vain. I know, the centre is carried by a bunch of young and energetic engineers. All institutions, industries and organizations need fresh blood at some point of time. They can imbibe new ideas, new technology and bring new thoughts. I am sure that, with the guidance of senior members, our new and young members are also efficient enough to take our Silchar Local centre to a higher level.

As we all know, Silchar Polytechnic is situated at the outskirts of Silchar Main town and there was an inconvenience of transportation during those days. So, Mr. Angshu Kumar Roy, who is also a member of The Institution of Engineers (India), Silchar Local Centre and owner of Hotel Indraprastha, Silchar helped by allowing us to arrange meetings in the banquet of his hotel till the Centre was shifted from Silchar Polytechnic to its own building. Likewise, there are many people of Silchar town and members of Silchar Local Centre who directly or indirectly helped us to achieve our milestone. I can recollect a few of those names:

- Mr. M. N. Madhavan - Ex. GM (ONGC), Silchar
- Mr. Ashutosh Chakraverty - Past Chairman, Silchar Local Centre, IE(I)
- Late Mr. J.M. Das - Ex. President (Town Club), Silchar
- Mr. Haridas Dutta - Past Chairman, Silchar Local Centre, IE(I)
- Late Mr. Sankar Sen - Past Hony. Secretary, Silchar Local Centre, IE(I)
- Mr. Pinak Pani Nath - Past Hony. Secretary, Silchar Local Centre, IE(I)
- Mr. Gour Hari Roy - Member, Silchar Local Centre, IE(I)
- Mr. Dibakar Bhattacharjee - Member, Silchar Local Centre, IE(I)
- Mr. Ranadhir Bose - Member, Silchar Local Centre, IE(I)
- Mr. Girija Shankar Das - Member, Silchar Local Centre, IE(I)
- Mr. Jagadish Das - Member, Silchar Local Centre, IE(I)

I seek pardon and blessings from all those persons whose names are not mentioned in the list but I assure all of you on behalf of Silchar Local Centre that it was your dream that has seen the light of the day and it is on the right shoulders to take it forward.

The Rural Development Centre of Silchar Local Centre was inaugurated on the 28th January 2002 by Mr. C. R. Dutta, FIE, the then Chairman of Rural Development Forum of the Institution of Engineers (India). In the beginning, the "Rural Development Centre" of Silchar Local Centre was started with an objective to train the rural people for self employment. Accordingly, a few training courses were organized on "Repairing of Two-wheeler", "Electrical Wiring", "Plumbing" etc. in the Centre. Men and boys from places of down trodden areas in the vicinity of Silchar town were provided training on aforesaid subjects so as to make them enable to earn their own livelihood. Our Silchar Local Centre was the first one termed as "Rural Development Centre" amongst all local centres of India. It was even published in The Newsletter of IE(I). I am confident that the way the training program were conducted earlier, the same trend will continue for the self-employment of the rural youth.

Here, I would like to mention the name of the members of the first Executive Committee of Silchar Local Centre for

the cognizance of all present members.

- Late Dr. M.C.Borghain - Chairman, Silchar Local Centre, IE(I)
- Mr. Sanjoy Prosad Das Purkayastha - Hony. Secretary
- Late Dr.Narayan Ganguly - Member
- Mr.Ashutosh Chakraverty - Member
- Mr. D.Sharma - Member
- Late Mr. J.K.Dutta Gupta - Member
- Mr. Amal Kanti Sen - Member

- Late Mr.Sankar Sen - Member

I am happy to know that the Centre has expanded with a new RCC building where the current official works, committee meetings and seminars are held regularly. The way the members of Silchar Local Centre are working for its betterment, I am sure that the Centre will reach a commendable position in a short span of time and this will remain as an example for the overall development of the geographical boundary of Silchar Local Centre.

## Celebration of 31<sup>st</sup> Foundation Day on 28-01-2020 The Institution of Engineers (India), Silchar Local Centre



### জনস্বাস্থ্য কারিগরী বিভাগ, আসাম সরকার

জল জীবন মিশন

গ্রামে গ্রামে প্রতিটি পরিবারে বিশুদ্ধ পানীয় জলের যোগান সুনিশ্চিত করা।

উদ্দেশ্য :-

- ২০২৪ সালের ভিতরে আসামের প্রত্যেক গ্রামাঞ্চলে প্রতিটি পরিবারে কার্যক্ষম পানীয় জলের সংযোগ (Functional Household Tap Connection) দ্বারা পর্যাপ্ত পরিমাণে বিশুদ্ধ পানীয় জল সরবরাহের ব্যবস্থা করা।
- পানীয় জল সরবরাহ প্রকল্প রূপায়নে রাজ্যের প্রত্যেক জনগনের অংশীদারি নিশ্চিত করার লক্ষ্যে উপভোক্তা পরিবারের পক্ষ থেকে নগদ খন/প্রকল্পে ব্যবহার্য সামগ্রী অথবা শ্রম দানের মাধ্যমে সহযোগিতা করার আহ্বান।
- পানীয় জল প্রকল্পের যথাযথ পরিচালনার জন্য নিম্নতম মাসিক মাসুল সংগ্রহের মাধ্যমে জনগনের মালিকানাধীন নিশ্চিত করা।

ঘরে ঘরে বিশুদ্ধ  
পানীয় জল

আসুন, এই মিশনের সুবিধা গ্রহণ করি।  
ঘরে ঘরে বিশুদ্ধ পানীয় জলের ব্যবস্থা করি।

সৌজন্যে : জনস্বাস্থ্য কারিগরী বিভাগ, ১নং সংমণ্ডল, শিলচর।

On the auspicious Occasion of  
54th Engineers' Day 2021

Wishing every engineers a  
very happy and joyous

**ENGINEER'S DAY**

**Er. Ratnajyoti Dutta Chowdhury, MIE**  
Executive Engineer (PHE)  
SILCHAR DIVISION NO.-II  
SILCHAR

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