



# IEI NEWS

## GOA

### The Institution of Engineers (India)

AN ISO 9001 : 2008 CERTIFIED ORGANISATION

(Established 1920, Incorporated by Royal Charter 1935)

## GOA STATE CENTRE

*"97 Years of Relentless Journey Towards  
Engineering Advancement for Nation Building"*

ISSUE NO. 62

SEPTEMBER 2017

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Er. Gurunath M. Naik Parrikar, FIE

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Er. Deepak A. Karmalkar, MIE

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#### FROM THE CHAIRMAN'S DESK

Dear Friends,

It is indeed a matter of joy & pride to hand over this first issue of the **IEI Goa News** for the Month of September 2017 on the occasion of **50<sup>th</sup> Engineers' Day**.

The days are moving very fast. It was on this Day that the new Managing Committee under my leadership took over the rein of The Institution of Engineers Goa State Centre.

During the past one year, a lot of Technical Activities have been conducted, including the 32<sup>nd</sup> **National Convention of Civil Engineers**, opening of Students' Chapter at Government Polytechnic Panaji, etc..During the year our Membership strength has increased by about 3.3%.

Goa State Centre has been granted Ex-officio Membership at Council meeting. I have attended the 696th Council Meeting at New Delhi.

The Institutions of Engineers (India) Goa State Centre is having a

dynamic Managing Committee with an active Hon. Secretary, **Er. Deepak Karmalkar**. He has been working very hard for the Institution & is supported by good office staff.



Our next activity of National importance is **"Twenty fifth IEI Convocation & Technicians' / Students' Convention"** on 28<sup>th</sup> & 29<sup>th</sup> October 2017 at Kala Academy, Goa. The details have already been circulated in the previous issue as well as this issue.

On behalf of The Institution, I invite all the members & other stake holders to join us by attending this major event & actively participate towards furtherance of the engineering profession & contribute to Nation building.

**Er. Gurunath M. Naik Parrikar, FIE**

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## One Year in Office as Hon. Secretary : Er.Deepak A. Karmalkar

I am happy to inform you that I have completed one year in the Office of IEI Goa State Centre as Honorary Secretary. It was a mixed feeling of Pride and satisfaction, mainly because we had successfully organised the 32nd National Convention of Civil Engineers. The other important achievement is the IEI Goa State Centre has been allotted the Council Seat of The Institution of Engineers (India), in which the Chairman becomes the Ex-Officio Member of the Council of IEI, the Apex decision making body. The various tasks which we have performed in this year are as follows:



### 1. Technical Activities:

Sr. No.	Types	Name	Date	Venue	Parti.	Chief Guest	Speaker	Division	In Association	Convenor
1	TV	Gemini Motor at Colvale Industrial estate	1 <sup>st</sup> Oct 2016	Colvale	75	--	Mr. Agenelo Gomes and Shri Marshal D'Souza	Mechanical	Don Bosco College of Engineering, Fatorda	Er. Anwar Khan Prof. Ajit Salunke
2	SD	ISO Standards for Quality Education and Training (World Standard Day)	14 <sup>th</sup> Oct 2016	ICG	80	--	Mr. Sontosh Nair	Mechanical	ICG	Er. Balkrishna Chodankar
3	WT	Digilocker	19 <sup>th</sup> Oct 2016	Saraswati Hall, Panaji	16	Er. G. M. N Parrikar	Er. Dilip Sahakari	Electrical		Er. Dilip Sahakari
4	NC	Role of Civil Engineering in Sustainable Development of India	21 <sup>st</sup> & 22 <sup>nd</sup> Oct 2017	Goa University	200	Dr. Smt. Mridula Sinha, Governor of Goa & Shri Sudin Dhavalikar, Hon. Minister for PWD.	Prof. Mahesh Tandon Mr. P Niranjana Dr. Anil Kumar Dr. Krishna Biligiri Ar. Nilpa Bandiwadekar Er. Mahendra Kakule	Civil	-----	Er. Austin Rodrigues

5	SD	Role of Goa Energy Development Agency (World Energy Conservation Day)	14 <sup>th</sup> Dec 2017	PWD, Altinho	30	Er. Anil Ringane	Dr. Promod Pathak, Member Secretary, GEDA	Mechanical	Public Works Department	Er. Balkrishna Chodankar
6	TV	Kaiga Atomic Power Station Karwar & Kadra Dam	28 <sup>th</sup> Jan 2017	Karwar	30		Shri U P Subramanya Kumar, Scientific Assist.	Mechanical	Don Bosco College of Engineering, Fatorda	Prof. Ajit salunke
7	S	National Science Day and Foundation day	28 <sup>th</sup> Feb 2017	GPP	60	Er. Gurunath M Naik Parrikar	Mr. Pradeep Sarmokadam, Member Secretary, Goa Biodiversity Board	Mechanical	Government Polytechnic Panaji	Er. Raghuvir Chary Nachiniolar
8	WT	Diesel Engine Technologies over Indian Railways	3 <sup>rd</sup> March 2017	Don Bosco College of Engineering, Fatorda	60		Dr. Suresh Mane, Principal GSIT Karwar	Mechanical	Don Bosco College of Engineering, Fatorda	Prof. Ajit Salunke
9	WT	Application of Energy Management and Audit	10 <sup>th</sup> March 2017	Don Bosco College of Engineering, Fatorda	40		Dr. Jaganath Hirkude, HOD Mechanical PCCE	Mechanical	Don Bosco College of Engineering, Fatorda	Prof. Ajit Salunke
10	AIS	National Level Paper Presentation & Competition	16 <sup>th</sup> 17 <sup>th</sup> Mar 2017	Government Polytechnic Panaji	22 papers	Er. Gurunath M Naik Parrikar	Smt.Minaxi Gad	Electronics	Government Polytechnic Panaji	Er. Komala soares
11	SD	Water and waste water (World water Day)	22 <sup>nd</sup> March 2017	ICG	40 Schools 13 Engineering Institutions	Er. S T Nadkarni	Er. K B Wadhavne, Director (Technical), IWWA	Civil	ICG	Er. Gurunath M Naik Parrikar
12	S	Advantages of Post Tension Concrete over RCC Structure	15 <sup>th</sup> April 2017	Hotel Fidalgo, Panaji	217	Dr. Neena Panandikar, Principal Don Bosco College of Engineering, Fatorda	Prof. Mohan Gadgil Umesh Bhujbalrao Mr. Vaibhav Parab	Civil	SCON Infrastructure	Er. Chandrashekhar Parbhudessai
13	AIS	Challenges in Environment Management : Mines and Industries	20 <sup>th</sup> & 21 <sup>st</sup> April 2017	Mining Department Auditorium, GEC	113	Shri Sudin Dhavalikar, PWD Minister. Shri Kishore Kumar, CEO, Vedanta Sesa Iron Ore Business, Goa	Dr. Manoj Borkar Mr. Ashokan Pappu Mr. Tim Wernera Dr. Y. G. Kale Dr. P. Parthasarathy Mr. Ganesh Kandaswamy	Environmental	Goa College of Engineering, Farmagudi	Er. Ulhas Sawaiker
14	SD	Big Data for Big Impact (World Telecommunication & Information Day)	17 <sup>th</sup> May 2017	Sinchai Bhavan, WRD, Porvorim	72		Prof. Rakesh Srivastava	Computer	Water Resource Department, Porvorim	Er. Deepak A Karmalkar
15	WT	Safety of Electrical Installation	19 <sup>th</sup> 21 <sup>st</sup> July 2017	MPT	60		Dilip Sahakari	Electrical	MPT	Er. Dilip Sahakari
16	PD	RERA	30 <sup>th</sup> August 2017	GCCI Convention Hall	130		Er. Ernesto Moniz, Dr. Desh Prabhudesai and others		GCCI	Er. Gerard J D'Mello

**Abbreviations :**

AIS – All India Seminar (2)	NC – National Convention (1)	PD – Panel Discussion (1)	S – Seminar (2)
SD – Statutory Day (4)	TV – Tour/ Visit (2)	WT – Workshop/Training (4)	TOTAL=16 Programmes

I sincerely appreciate all the convenors for doing a great job in organising the above technical activities.

**2. Examinations:**

The Winter 2016 AMIE Examination was held from 3rd to 9th December 2016 and the Summer 2017 AMIE Examination was held from 3rd to 9th June 2017 of Section A and Section B at Government Polytechnic Panaji under the Officer in Charge Er. Austin Rodrigues and Er. Raghuvir L. Chary respectively. The Examinations were monitored by me under the Direction and Control of Secretary Director General of IEI. The Examinations were conducted smoothly and peacefully and without any incident. The Examinations were supported by Er. Gurunath M Naik Parrikar, Chairman, IEI Goa State Centre & Shri Louis Fernandes, Principal GPP.

### 3. Finance :

As far as Finance matters are concerned for the year 2015-16 and 2016-17, we faced a very stiff and challenging task of Accounts and Finance of IEI. The Organising Committees of the 32nd National Convention of Civil Engineering and The Seminar on Regulation of Land Development & Building Construction were successfully organised, giving us a good surplus of around 10 lakhs.

Subsequently, thereafter the Office of the IEI Goa State Centre had to face a uphill task of complying with the payment of statutory dues, filing of returns and maintaining of accounts of our Institution. However, with the efforts and services availed from the Financial Advisor Mr. Ruildo D'Souza, the things were regularised and I am proud to inform you that till date we have complied on time with all the statutory obligations pertaining to the Income Tax, Service Tax and Goods and service Tax of our Institution. We have opened a new account with the provision of Net Banking facility in order to adhere to the payment of statutory dues on time. The surplus amount of Rs ten lakhs has been invested in FD. I specially thank Mr. Ruildo De Souza for excuting the work of IEI for the last year in a very enthusiastic manner and equally well supported by our Chairman.

### 4. IEI GOA NEWS

IEI GOA NEWS The Bimonthly Magazine of the IEI Goa State Centre Goa ENGINEWS is changed to IEI Goa News with effect from September 2017. The Editing part is being looked after our Chairman Er. Gurunath M Naik Parrikar and Er. Komala Soares. I thank the sponsors and the contributors of the articles.

### 5. Website (www.ieigoasc.org)

The website of the IEI Goa State Centre (www.ieigoasc.org) was created for the first time in May 2015, Subsequently the website was revamped in May 2016 with the following features namely well structured, very informative, always updated, ranked high by Google due to Search Engine optimization and easily searchable, responsive design and automatically adjusts to mobile tablet and laptop. I thank the Management Committee for entrusting me the responsibility of maintaining the website.

### 6. Administration & Other issues

Guidance classes in Section A are conducted in three subjects namely Fundamental of design & manufacturing, Material Science & Engineering, Society & Engineering. This year we have purchased books from different publishers on various subjects including two volumes on National Building Code 2016.

I also thank Er. P Kantak, Er. P. P. Borkar and Er. Gajanan Karkare along with the Members of Managing Committee for extending their valuable time and suggestions in settling the matter of the premises D-8-2.

I extend my sincere gratitude to the Town & Country Planning Department (Conservation Board) & Board of Technical Education, Govt of Goa, for including the members of IEI Er. Chandrashekhar Prabhudessai and myself respectively, into their Boards.

Appreciable work have been done by our Office Staff Mrs Vallavi Sirsat and Ms. Arti Raul in arranging the Office and Library and also managed the painting work.

Finally I consider myself lucky when I was presented the Distinguished Alumni Award at the First Western Zone IEI Alumni Meet held at IEI Gujarat State Centre, Ahmedabad on 11th June 2017 at the hands of the President of IEI Er. Navinchandra Vasoya and also got the opportunity to attend the Interactive Session along with the Chairman at the Engineering Staff College of India at Hyderabad on 19th Feb 2017.

I thank the Almighty and all the Members of IEI for their valuable support in Particulars our Chairman Er. Gurunath M Naik Parrikar who have guided me and the Immediate Past Chairman Er. Gerard D'Mello for giving me the useful hints.

Thank you and God Bless you all.



## Seminar on “Electrical Safety”

A training session was organized on “Electrical Safety” by the IEI Goa State Centre in association with Mormagao Port Trust on 19th and 21st July 2017.

Er. Dilip Sahakari welcomed the gathering and explain the benefits of joining the institution and its privileges. He further gave presentation on electrical safety at residence, office and other areas normally visited by individuals.

Er. Gerard D'Mello gave presentation on safety in electrical sub stations and precautions to be taken during lightening. and during electrocution of an individual.

Program ended with vote of thanks by Er. Sakharam Singbal. Er. Dilip Sahakari was convenor of the program. About 60 participants has attended the program which includes employees and contractors of MPT.



Er. Dilip Sahakari delivering a lecture to the Participants





## Visit of Dr. Jitendra Saxena, Director, EEA to IEI Goa State Centre

Dr. Jitendra Saxena, Director, Education, Examination and Accreditation, IEI visited Goa from 31st July to 3rd August 2017. He was accompanied by Mr. K V Hariharan, EEA Department.

On 31st July 2017 he had a preliminary discussion with the Chairman, Hon. Secretary and Staff of IEI on various issues pertaining to 25th IEI Convocation to be held in Goa.



Dr. Jitendra Saxena with the Office Bearers and staff of IEIGSC



Er. Gurunath M Naik Parrikar presenting a flowers of bouquet to Dr. Jitendra on his birthday.



Dr. Jitendra addressing to the students of Govt. Polytechnic Panaji



On 1st August 2017, Dr. Jitendra Saxena inaugurated the Students' Chapter in Electronics Division at Government Polytechnic Panaji. He explained the rules and regulations of IEI with the help of PPT show. He had an interaction with the Principal, Faculty Members and the students. The Chairman and Hon. Secretary were also present on this occasion.

Dr. Jitendra Saxena visited Agnel Institute of Technology and Design, at Assagao and had interaction with the Principal and Students at the function held there.

The discussion with the Organising Committee of the 25th IEI Convocation and Technicians'/ Students' Convention to be held in Goa was the main Agenda of Dr. Saxena's visit to Goa. The discussion lasted for about four Hours wherein detailed programme was chalked out. The Director also had a look at the venue to get acquainted with the location.



Dr. Jitendra addressing to the students of Agnel Institute of Technology and Design, Assagao



Dr. Jitendra along with the Organising Committee of National Convocation.



Dr. Jitendra along with the staff and students of GEC



On 2nd August 2017 Dr. Jitendra Saxena visited the Goa College of Engineering and interacted with the Principal, Faculty Members and Students.

Accompanied by the Chairman and Er. Vaman Gaitonde, Past Chairman, Dr. Saxena called on Shri Manohar Parrikar, Hon. Chief Minister of Goa to invite him as a Guest of Honour at the Convocation Function to be held in Goa.



Dr. Jitendra explaining rules and regulations of IEI to the students of Don Bosco College of Engineering



Dr. Jitendra along with the faculty members of DBCE and Members of IEI

Later in the evening Dr. Saxena visited the Don Bosco College of Engineering, Fatorda for interaction with the Director of Don Bosco College of Engineering, Faculty Member Prof. Shri Ajit Salunke and Prof. Sharad Shanbag. He was accompanied by the Hon. Secretary and the Organising Secretary of the Convocation Shri Chandrashekhar Prabhudessai.



## THE INSTITUTION OF ENGINEERS (INDIA) Increase in Membership Fees

Dear All Members,

The Council at its 696<sup>th</sup> Meeting held on July 1-2, 2017 in New Delhi approved the increase in fees of membership in various grades as follows:

Increase in Membership fees of The Institution of Engineers (India)			
Grades	India & Nepal (Rs) Including GST	US \$ for SAARC Countries	US \$ for other countries
Fellow (FIE)	12980	300705	680
Member (MIE)	4897	200	490
Associate Member (AMIE)	4189	170	430
Student Member (SMIE)	1500	88	150
Senior Technician (ST)	7050	460	655
Technician (T)	7050	455	630

With Regards  
Dr. S. M. Ali,  
Director (Membership)



## Panel Discussion On Rera And Draft Rules For Goa

A panel discussion on the Real Estate Regulations & Act (RERA) and the Draft Rules for Goa was jointly organized by IEI Goa State Centre, CREDAI, Goa Chamber of Commerce & Industry, Indian Institute of Architects, Institute of Indian Interior Designers, and Goa Association of Realtors, on 30th August 2017, at GCCI Convention Hall in Panaji. It was attended by about 130 persons, consisting of Engineers, Architects, Builders, Interior Designers, Real Estate Agents, Contractors, Accountants and other stakeholders.

The panel consisted of Er. Ernesto Moniz F.I.E., Past Chairman – IEI Goa State Centre; Dr. Desh Prabhudesai, President – CREDAI; Ar. Tulio D'Souza; Ar. Milind Ramani; and Mr. Denzil Xavier, President – Goa Association of Realtors. The discussion was anchored by Ar. Manguesh Prabhugaonkar, Chairman – Real Estate Committee of GCCI and also Chairman – IIA Goa Chapter.

The Real Estate (Regulation and Development) Act, 2016 (RERA) was passed by the Central Government in March 2016. The Act makes it mandatory for all commercial and residential real estate projects where the land is over 500 square metres, or eight apartments, to register with the Real Estate Regulatory Authority (RERA) for launching a project. This is intended to provide greater transparency in project-marketing and execution and ensure protection to home-buyers and also impose penalties on errant builders.

While welcoming RERA, the Real Estate Industry felt that one major factor was missing – that is accountability of the Government Machinery. No time schedules have been proposed for granting of various permissions and for providing of infrastructure. Without this, builders will find it very difficult to adhere to committed schedules. Various other related issues were also discussed. The In charge of the Panel Discussion program of the IEI Goa State Centre was Immediate Past Chairman Er. Gerard D'Mello.



Er. Ernesto Moniz, one of the member at the Panel Discussion program on RERA



**IEI Goa State Centre Welcomes Our new members and member upgrades**

Name	Location	Division	Grade/Upgraded	Month of Joining
Ashton L L Godinho	Altinho	Mechanical	F-123104-5	31 <sup>st</sup> August 2017
Velho Godfrey Simon	Caranzalim	Civil	M-159151-1	31 <sup>st</sup> August 2017
Talak Tanmay Alias Vishnu Madhav	Margao	civil	AM-175529-6	31 <sup>st</sup> August 2017
Kamat Anish Pradip	Neura	Computer	AM-175618-7	31 <sup>st</sup> August 2017
Raikar Rajesh Mahadev	Taleigao	Civil	AM-175622-5	31 <sup>st</sup> August 2017



## Ground Water

- Er. Bramhanand Sripad Naik

Groundwater is the water present beneath Earth's surface in soil from spaces and in the fractures of rock formations. Groundwater is important phase of hydrologic cycle. Most perennial streams derive the greater part of their flow from groundwater, while in and regions much of surface stream flow percolates to the groundwater.



The term water level; water table or phreatic surface has defined as the level within a body of subsurface water at which water pressures are equal to atmospheric pressure. The neutral stress in this surface is zero. The water that occupies the voids of the soil also water table, called upper zone construction soil pressure. The zone below the water table is saturated and present in natural formation such as aquifers which are relatively pervious soil and rock formations, through which groundwater flows induced by gravity.

Moisture in the zone of aeration may be present as gravity water in transit in the larger pore spaces as capillary water in the smaller pores as hygroscopic moisture adhering in a thin film to the soil grass and as water vapour. Gravity water is in transient state. After a rain water may move downward in the larger pores, but the water must either be dispersed into capillary pores, or pass through the zone of aeration to the ground water or to a stream channel.

Almost all ground water is meteoric water derived from precipitation Connate water present in the rock at its formation and frequently highly saline is found in some areas. Juvenile water fall formed chemically within the earth and brought to the surface in intrusive rocks occurs in small quantities. Water from precipitation reaches the ground water by the process of infiltration and by percolation from streams and lakes. Direct percolation cannot yield large quantities of ground water except where the soil is highly permeable or the water table is close to the surface.

Without interference by men a ground water basin fills with water and discharges its excess by several routes. Where an aquifer intersects the earth's surface a spring may form. There may be concentrated flow constituting the head water source of a small stream or merely effluent seepage which evaporates from ground surface. First magnitude spring discharge 100 cfs or more while eighth magnitude springs have a flow less than 100 pt/min. During dry periods the natural discharge is reduced as ground water levels fall and outflow may even cease.

Engineers are concerned for the water from aquifers flowing into excavations which are to be controlled to maintain dry working condition or to reduce pressures on structures. Engineers should be aware that groundwater conditions are transient and that those encountered during investigation will not necessarily to those existing during construction.

The water table position is important in as

1. Dewatering is necessary for excavation below water table
2. Uplift of basement floors is caused if there is sudden rise of water table
3. Swelling of soil may take place due to fluctuation in water table
4. Ground collapse may result if excess ground water is pumped.





## CONDOLENCE



The Managing Committee, Members, Students and Staff of  
**The Institution of Engineers (India)  
Goa State Centre**

deeply mourn the sad and untimely demise of our  
Member of MC, Past Hon. Secretary and Ex-Editor of IEI Goa New

**Er. Ashton Godinho, FIE**

Our heart goes to the family members.  
May the Almighty give them courage to bear the loss  
May his soul rest in peace.



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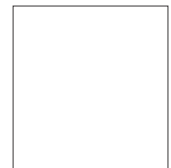
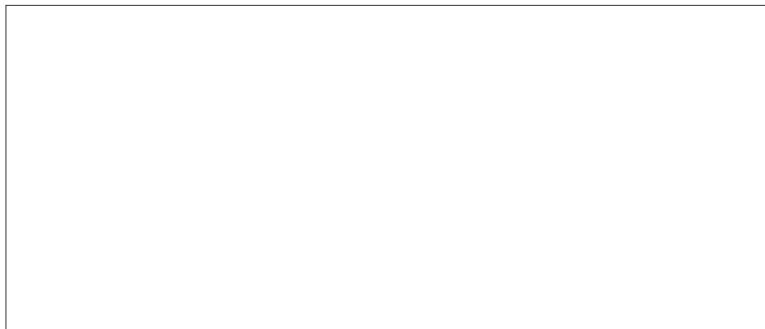
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We request our members to get more interactive with the Institution. We'd love to have your contributions towards our bulletin too. Do send in your articles, reports and other information that you'd like to share with other members to our office:  
**The Institution of Engineers (India), Goa State Centre, D Type quarters, D-8-1, Govt. Polytechnic Campus, Altinho, Panaji. Tel No: 2434686 Email : goastatecentre@gmail.com Website.: www.ieigoasc.org**