



CETAAT

News Letter

TRIVANDRUM CHAPTER

OCTOBER 2020 VOLUME-3 ISSUE-4

From the Chairman



Dear friends,

✦ The Covid 19 pandemic is still looming large and the normal routines are disrupted. CETAAT also had to switch over to online mode of operation - conducting MC meetings online. Since the Technical Talks in physical mode are not feasible, we started a monthly webinar series from August. Two such webinars were conducted with good participation. We could throw open these webinars to other CETAA chapters also.

CETAAT could lend a helping hand to CETALAP project for distribution of Laptops to selected CET students to enable them to attend online classes. Due to efforts of our generous members we could donate 10 Laptops under this scheme.

A format for database collection for the proposed CETAAT Consultancy Group was prepared and circulated to CETAAT members. I request all those members who are willing to participate in this Consultancy Group to fill up the format and submit online.

Represented Trivandrum chapter in the online CETAA Chapter Executives Meeting held on 12 September 2020. 19 chapters from Sydney to California spread across 8 different time zones participated. As the convener of the first ever chapters meet and proponent of web based Chapters meet, it gives me great pleasure that the web based meeting of Chapters meet has now picked up and in the last meeting we decided to make it regular by meeting once in a quarter. CETAA LAP project was discussed and chapters contributed to meeting the target of 214 laptops. Importance of increasing National Visibility of CET via NIRF was another aspect discussed. Creation of Subgroups were suggested to discuss action items to improve NIRF ranking. Strengthening of GEMS and CARE schemes and Alumni mentoring for Students were other topics discussed.

Stay Home Stay safe

S. Gopakumar, Chairman

CETAAT

News Letter

We solicit literary contributions from CET alumni and their family members for the quarterly News Letter being published by CETAAT.

The articles in the form of short stories, poems, cartoons, travelogue etc. will be published in the forthcoming issues of CETAAT NEWS LETTER.

The articles can be mailed to the e-mail : mgknair@gmail.com

Editorial Board MGK Nair, KG Chandrasekharan, SKK Nair, M Pradeep Kumar, Jaya G Nair



Report of Secretary - July to September 2020



Dear CETAAT members,

We are continuing in the grip of the pandemic with our state facing steep rise in the number of cases. It is gratifying that Team CETAAT could rise to the occasion and offer timely help to the needy which includes – PPE kits & masks to Medical

College, Trivandrum and laptops to the deserving students of CET enabling them to attend online classes. We thank all members who have responded to our charity call and facilitated the noble deeds.

The constraints imposed by the Covid 19 pandemic has brought about certain positive changes too, which has, to an extent streamlined the CETAAT activities.

- ▶▶ The Management Committee Meetings are now conducted online with better participation. The 15th, 16th, 17th, and 18th Management Committee (MC) meetings of CETAAT were conducted on 9th July, 4th August, 8th September and 6th October 2020 respectively though the online platform.
- ▶▶ As decided by the Management Committee, the Annual General body Meeting which was due on September 2020 was postponed due to the pandemic situation. The revised schedule will be informed to all members in due course subject to improvement of the situation.
- ▶▶ We had conducted two Webinars on technical topics during this quarter as regular meetings are not possible. The very first Webinar of CETAAT in association with Indian Plumbing Association, Trivandrum Chapter was conducted on 18th August 2020. Er G Ramkumar (1978 Civil Engineering & former Executive Director (Automation) - Indian Oil Corporation Ltd.) delivered a lecture on the topic “Meeting Water Challenges”. It was a very informative talk with lot of discussions & attended by more than 120 participants.
- ▶▶ The second Webinar dated 22nd September 2020 was on “Modern Trends in Video Conferencing” Mr Joy Sebastian (CEO & Co Founder, Techgentia). Mr Joy is the winner of the “Grand

innovation Challenge for Video Conferencing Software” conducted by the Ministry of Electronics & Information Technology (MEITY) under the Government of India’s search for a Make in India Video conferencing Software named “Vconsol”.

- ▶▶ As part of our charity activity, CETAAT donated ten laptops to students of College of Engineering, Trivandrum (CET) on 28th September '20 at CET in the presence of Principal, few staff members including members from CETA. Five sets of laptops were handed over to students from Trivandrum District in the brief function and another five sets were sent through courier to students in Alappuzha, Kollam & Pathanamthitta since online classes have already started. CETAAT profusely thanks all the contributors for their noble donations for gifting of laptops to the needy & deserving students of CET.

- ▶▶ During this quarter, we had lost two of our illustrious CETians – Prof. Dr. PJ George and Prof. Dr. TK Gopalakrishnan Nair who had excelled in academic fields, our mentors and above all very practical engineers. The Management Committee meeting of the CETAAT held on 8.9.2020 condoled and forwarded Condolence Resolution to both of their families.

- ▶▶ Being online, we now have the opportunity to conduct more Webinars on topics relevant to the CETians. It was decided to update & prepare a list of speakers for the upcoming programmes of CETAAT. All members are requested to inform details of our CETians in India & abroad who can be approached for the lecture programmes.

Our Newsletter team headed by Mr MGK Nair has been actively pursuing the related activities and the next edition of the Newsletter is due to be released by the end of this month. Articles are solicited from members as well as their family members for publication in the Newsletters.

Let us hope the present situation improves and normalcy returns to our lives soon. Till then let us continue to take all precautions and strictly follow the health protocols.

Stay Safe & healthy!!

I thank you,

Anil G.
Secretary



DONATION OF LAPTOPS TO CET STUDENTS BY CETAAT



K Nandakumar
Vice-Chairman

The appeal from CETAA for donating laptops to deserving students of CET enabling them to attend the web based classes due to the COVID pandemic was discussed in the MC meeting of CETAAT.

KG Chandrasekharan has been instrumental in bringing large contributions to the CETAAT Charity fund and he suggested using money from this fund to buy the laptops. Managing Committee of CETAAT had earlier decided to provide only 50% funds from CETAAT to any charity activity provided the balance 50% is collected from members as charity contribution. Therefore, it was decided to seek contributions from the members.

The committee members backed us all with their usual enthusiasm and support and even the number of laptops increased from the initial five sets to ten sets, which spread like a pandemic to others as well.

It was decided then that we should purchase and distribute the laptops on a war footing basis so that the students who cannot afford laptop computers also could attend the online lectures from their homes spread across Kerala.

Ravindran T studied the specs and improved upon that without affecting the price. Team CETAAT (Past chairman – Ravindran.T, Chair S.Gopakumar & Vice Chair Nandakumar.K) visited the factory of Coconics*, negotiated & approved the best suitable model & arranged ten laptops swiftly at a total cost of Rs. 2,95,000/-. Over Rs 1.5 Lakhs was collected as contributions and the balance taken from CETAAT charity fund.

M/s Coconics extended support for free internship to the ten students presented with laptops and also lifelong free service for the laptops after the three year warranty period. Only parts replaced will be charged. We thank you M/s Coconics.

Laptops to five CET students from Trivandrum District were distributed at a simple function held at CET on 28th September 2020, in the presence of Principal, a few staff & CETAAT team. The remaining five laptops were forwarded through courier directly from Coconics to students at Kollam District (2 sets), Pathanamthitta (one set) and Alappuzha (two sets). The receipt of these were verified by team CETAAT.

Team CETAAT thanks all donor members of this noble deed and express our deep gratitude for supporting our appeal for charity.

CETAAT Webinar “Meeting Water Challenges”



Er G Ramkumar

G Ramkumar 1978 CET - Civil, M Tech (IIT Madras), FIE. Recipient of the “The Marine Engineering Division Gold Medal” for 1988-89, of the Institution of Engineers (India). Experience with Oil Major, Indian Oil, across the Nation, on Projects, Automation, Marketing, Management etc., Retired as Executive Director Indian Oil Corporation Ltd. Involved in Practical Rain water harvesting implementations, with accolades. Passionate in sharing the thoughts, creating awareness & team involvement. A will for effective RWH implementations.....& striving for Water comfort. Has Released YouTube Videos, on Ground water recharge & Rain Water Harvesting.

<https://youtu.be/dJaskCUJR9g>, <https://youtu.be/yvareWxLBOo>

Email : ramkumarioc@gmail.com

Mobile : 9769547632/8779691015

Our very first CETTAT Webinar series commenced on 18th August 2020, by Speaker Er. G Ramkumar, CET 1978 Civil, on the important theme on “Meeting Water Challenges”. It was an enjoyable & fruitful session with 100+ participants, from India & Abroad. The interest & enthusiasm generated is well illustrated with enthusiastic comments, interactive question &

answer session, with a variety of queries.

The Gist as shared in the Speaker’s words:

“Pleasure to share a gist of my webinar talk on ‘Meeting Water Challenges’ hoisted by CETAAT in the Webinar talk series during August 2020. At the outset, let me thank the CETAAT team on this lovely initiative

& the enthusiastic Participants too.

The Nature gives us more than what we need. It gives us abundant Rain fall too. By harnessing the Rain water, we can easily meet the requirement of the Planet Earth, not only for us.....for the future Generations too. Our state of Kerala gets 2.50 m to 3.0 m of Rain fall annually. Certainly, Kerala gets abundant Rain. Let us Endeavour to make Kerala, water comfortable too. Our duty to use the water prudently, and also save every drop of water which falls in our own plots, either for direct usage, or by harvesting & recharging the ground by simple practical RWH measures.

Sharing, the practical RWH experiences, (over last twenty years): illustrations of RWH done at Residential complexes, Industrial areas, & the recent team efforts on RWH at Kamakoti Nagar Park, Chennai (an initiative with societal impact).

The Ennore LPG Plant site, (year 2000) posed a Water challenge, as no good water was available & Ground water was salty. With team Indian Oil, scheme designed: Catching the rain water from the Plant Sheds Roof area, channelizing into a Tank of 3,000 CuM / KL capacity, we could meet the Plant's Water needs to a large extend. Provision of RWH Pits in the Site area of around 50 acres, to recharge the ground. The outcome - the earlier saline ground water table has improved to water of good quality.

LPG Plant Ennore. Chennai - Rain Water harvest Tank of capacity 3,000 Cu M / KL. RWH Pits too.

To summarize, may our Group join hands to spread Awareness on rain water harvesting (RWH) practical



implementations - ground water recharging. Let us save every drop of rain water which falls in our own plot or industrial areas or Institutions by harvesting prudently.

Let us Endeavour not to throw water from the plots to

the roads, where by Roads become the drains. Spreading this message by our own members as ambassadors on "Mission Water". Once the mother Earth is fed with the copious rain water, the planet Earth shall take care of us and future generations too.

Key take aways from the session:

- Nature gives us sufficient Rain. Are we utilizing Rain Water efficiently?
- A glance at the practical rainwater harvesting implementations, effectiveness.
- Generate awareness on rain water harvesting, recharging the ground water.
- An Initiative with Societal impact...
- Avoid draining rain water from our plots onto the roads & reduce the road flooding.
- Let us utilise, harvest every drop of rain, falling in our plots.
- Strive to ensure water comfort for future generations.

Padmatheertha Kulam (pond) – Olden days, fresh water from Killiar was drawn from the Maruthamkuzhy weir near Sasthamangalam through pipes & canal to the temple pond & the outlet (pond) was connected to the sea, thus maintaining fresh water always.



THE LEADERS ■

The College of Engineering Trivandrum (CET) started functioning in 1939, under the University of Travancore, which itself was established in 1937, by the then Maharaja of Travancore, Sree Chitra Thirunal Balarama Varma. The college started functioning on 3rd July 1939 at the premises of the present PMG office and the Kerala State Science and Technology Museum. The college was shifted to the present location at Kulathur in 1961. Students then doing their final years in 1961 -1962, had the privilege to be the first batch to graduate from the new premises.

In its nascent phase, CET offered degree courses only in three branches viz. Civil, Mechanical and Electrical Engineering. Diploma courses were also offered in the same engineering streams. In 1939, 21 students were admitted for the degree course and same numbers of students were enrolled for the diploma courses. Besides this, there was also a certificate course with 40 students. Though seven seats were allotted for each branch of Civil, Mechanical and Electrical engineering, some of the seats in the electrical branches were not filled in some of the academic years. Adjustments were made among the branches in order to maintain the total number of seats. Thus, the first batch to pass out in 1943 had 11 civil, 5 mechanical and 3 electrical graduates.

The name and fame of an educational institution is amplified by its illustrious Alumni and the College of Engineering Trivandrum (CET) is no exception. CET boasts of many multifaceted engineers, academicians and administrators among its alumni, who adorned or are adorning the top positions in institutions all over the globe. Among them are leaders who have guided and inspired the younger generation.

CETAAT News Letter will carry a series 'THE LEADERS' which will portray personal details and the professional achievements of senior CETians, with the aim of introducing them to the younger Alumni ■

Er. P. M. CHACKO



We are very happy to present in this issue a very competent, illustrious Engineer son of our alma mater who has developed his potentials and innate qualities to the extent possible and pursued a very successful career thereby making remarkable contributions in all fields of his activity and for the development of the country as a whole.

He is Er PM Chacko, belonging to the 1948-1952 batch of Mechanical Engineers. Born on February 19 at Thalavady, Alappuzha Dist., he had his school education at local schools before joining the American College, Madurai, for the intermediate course (1944-'46). He also did BSc in Physics from the same college in 1948 before joining CET, the only Engineering College in the then Travancore State, under the Travancore University. Chacko sir remembers that the college was functioning in the present PMG office premises with relatively very small buildings. The total strength of the batch was 48, with 24 students in Civil and 12 each in Electrical and Mechanical branches. Prof Deshpande was the Principal and Professor of Mechanical. Prof Dr. M.V.Kesava Rao was the Professor and HOD in Electrical and Prof Rajaraman was the Civil Engineering Professor and HOD. There was no hostel facility of its own for the college in those days. Accommodation was provided in the University hostel where students of all categories, graduates, under graduates, post graduates etc, age ranging from 16 to elderly graduates well past 50 doing their B Ed.

After graduation from CET, Er PM Chacko proceeded to Jamshedpur where graduate trainees were being selected for TISCO as also for the three Govt of India steel companies coming up at Bhilai, Durgapur and Rourkela. He was selected as the GOI Trainee. By the time the one year training was completed none of the companies reached a stage to absorb the trained personnel, with the result the trainees were permitted to be free of the post training commitment. On his way back home he met the Chief Engineer, Madras State PWD and secured appointment as Junior Engineer. Later, he joined the Madras Port Trust as Asst Executive Engineer and continued there for more than six years. Thereafter, he joined Mar Athanasius College of Engineering, Kothamangalm as HOD, Mechanical Engineering Dept. and had a tenure of 18 months in that capacity.

His career took a sudden boom in September 1963 when he joined Harrisons and Crosfield Ltd (H&C), Quilon, in the covenanted scale. Most of the engineers in the covenanted scale were English men. The Engineering wing of the company was, later shifted to Kochi in May 1971. He was elevated to the post of Chief Engineer, H&C, in 1972. He has the rare distinction that he is the first Indian to function as CE of H&C with jurisdiction all over India. There are a large number of prestigious projects such as distilleries manufacturing industrial as well as potable alcohol, crumb rubber factories, palm oil extraction units etc designed and set up on turnkey basis by him. Er Chacko undertook the design, erection and commissioning of the flood lighting system at the Maharaja's College ground, Ernakulam, in the year 1973 in a time bound manner. He visited Munich,

Germany, and UK to study the flood lighting system in a number of stadia there before finalizing the design to meet all requirements with least cost. Was also a member of the General Committee and the Executive Committee for the construction of the original Kaloor international stadium at Kochi.

Leaving his job with H&C, he started an Engineering Consultancy firm, PMC Engineers (P) Ltd. in 1978 covering all disciplines of engineering and took over as its Managing Director. It was during this period that he was elected as President of IE(I) for 1994-'95. Was re-elected for the subsequent session 1995-'96 also. It is worth mentioning that Er PM Chacko is the one and only Keralite to decorate the highly rated position of the President of IE(I) in its hundred years of existence. IE(I), the largest professional body of Engineers in India, is completing hundred years now since its formation in 1920 by the British Govt. It is all the more creditable that he was re-elected for a second term which happens very rarely. Because of his popularity and the support he received from the engineering fraternity he could take up the Institution to a different level and could contribute a lot in formulating the national policies on sustainable development, climate change, pollution control, waste management etc, thereby increasing the prestige and value of the Institution to the society and the nation in general. During this period he was member of the All India Council for Technical Education (AICTE) and the National Board of Accreditation of Technical Institutions. He was member of the Executive Committee of the Commonwealth Engineers Council, London. It was a special honour for him that he was invited later to chair the Commonwealth Engineers meet linked to CHOGM at Edinburgh.

Er PM Chacko was member of many committees of GOI like post-Surat plague committee with five members of the Planning Commission as fellow members. He was the main force in organizing the International Conference on Energy in New Delhi, in 1994, with the theme "Energy for tomorrow's world- Concerns and issues of Developing Countries" with the active participation of all big-wigs of the Energy Industry in the country and top bureaucrats of GOI, members of Planning Commission etc. as steering committee members. It was in this conference that the "New Delhi declaration" was drafted and got approved with special emphasis on the needs of the developing countries. The most challenging assignment at National and International level was the chairmanship of the Indian Member Committee of the World Energy Council, where he had to fight alone for the cause of the developing countries against thirteen other countries on the opposite side. Finally, the President of the meeting from Switzerland had to

heed to the argument of Er PM Chacko that the IE document represents 2/3rd of the humanity and cannot be brushed aside as a single country's stand. Ultimately it was approved that the document will be considered in the next WEC meeting at Tokyo. Er Chacko chaired a session in Tokyo when IE(I) stand was explained.

As the President during the Platinum Jubilee year, he organized a series of functions in many centres. The Rashtrapatiji was the Chief Guest in the main function at Calcutta. Another important function was the well attended Aeronautical Congress organized jointly by the Aeronautical Society of India and the IEI for which Shri APJ Abdul Kalam and PM Chacko, the respective Presidents were co-chairmen of the organizing committee.

Apart from the IE(I), Er PMC is fellow of five other professional societies. A great honour bestowed on him was that he was identified as one of the ten Engineers who contributed substantially to the industrial development of the country during the fifty year period from 1947 to '97, by GNN, KESNIK and NIHAM in 1997. Padmasree Paul Pothen (FACT); Er MN Prasad, Former Chairman of Railway Board; Er E Sreedharan, the 'Railman' were also among the ten engineers who were honoured by the Governor of Kerala in a special function.

Er PM Chacko was a good Volleyball player right from his school days. He captained CET Volleyball team and represented the Travancore University Volleyball team also. During his training period at Jamshedpur he was member of the TATA volleyball team and also played for the Bihar State. He was member of the University swimming team and partook in inter varsity swimming meets.

Er PM Chacko always tries to impress upon the Engineers that they have to do a tremendous lot when it comes to Air, Water and Climate change. He quotes that "Scientists study the world as it is, Engineers create the world that never has been". He believes that Engineers have to be more innovative; new skills, new approaches and greater speed are needed. SMART technologies have to be resorted to in every conceivable way for conservation of natural resources and sustainable development.

Reasonably healthy and still very active and upto date in all matters, Er PM Chacko leads a very contended life at his house at Paul Abrao road, Kochi, with the happy feeling that he could contribute something for the betterment of the engineering profession and also for the development of the country as a whole.

Chacko sir lost his wife in 2017. He has two children, daughter Smt. Sarah, married to Er Alex Mathew, have three children, all Engineering graduates; son Er

Mathew Chacko, also a CET product, Consulting Engineer, married to Smt Roshini, they have an Engineer cum Manager son and a daughter.

A great Engineer of immense knowledge, bestowed

with an inimitable style of administrative ability, a hard go-getter, a visionary of untiring enthusiasm, a great orator with enviable command over language, Chacko sir is a role model for all engineers.

PK Thresia The Forgotten Story of India's First Woman Chief Engineer

Engineering as a profession continues to be a male-dominated one in India. An All India Survey on Higher



Education ([AISHE](#)) revealed that although engineering is the third major stream to witness enrollments in the country after Arts and Science, only 28.6 per cent comprises of female enrollments. This is a phenomenon that is not just seen in India but across the [world](#).

In this context, women who first forayed into this profession were the true pathbreakers who completed their degrees and achieved great things.



(Left to Right) PK Thresia, Leelamma Koshy George and Lalitha, the first women engineers in India

P K Thresia is one of the first three women to have graduated from College of Engineering, Guindy (CEG), University of Madras. Lalitha and Lellamma George were the other two women with Lalitha being the first woman to receive an engineering degree in

the country.

In the [book](#) Roots and Wings – Inspiring Stories of Indian Women in Engineering by Shantha Mohan, Lalitha's daughter, Syamala, explains that although Thresia and George were a year junior to Lalitha, they all had to graduate at the same time in 1944 because the Second World War was at its peak and the university had decided to cut down the engineering course by a few months.

Thresia, armed with a degree in Civil Engineering, then joined as a Section Officer at the Public Works Commission of the Kingdom of Cochin under the British rule at the time. She later went on to become the first woman Chief Engineer in the Public Works Department (PWD) in Kerala in 1971, a position she served for eight years. This also made her the first woman in Asia serving as a chief engineer in a state's PWD.

"I was in office for only about three months. However, by then I [had] understood that an engineer's life is not as difficult as many women think," [said](#) Thresia to Kerala's premier newspaper Malayala Manorama, that felicitated her promotion in 1971.



PK Thresia became the first woman chief engineer in 1971

After Thresia joined the PWD department, she was soon promoted to Assistant Construction Engineer for the TB Sanatorium located in Mulakunnathu kavu, Kerala. Thereafter, when she became the Executive

Engineer, she moved to Ernakulam in 1956.

As a chief engineer, Thresia ensured infrastructural development in her tenure commissioning at least 35 new bridges every year and road construction projects. Additionally, she also worked on many projects related to the construction of hospitals like the women's and children's hospitals affiliated to the Kozhikode Medical College.

Not one to shy away from experiments, Thresia also pioneered rubberised bitumen roads in Kerala. She went on to become a member at the conferences held by the Specification & Standards Committee of the Indian Road Congress.

Thresia was born on 12 March 1924 in a Christian family. She was the second oldest of the six children. Her father, Kakkappan, was an agriculturist in Edathiruthy in Kerala's Thrissur District. She studied and graduated from St. Mary's High School in Kattoor.

Her father was one of her biggest pillars of strength who wanted his daughter to fulfil her dream of pursuing an engineering degree. She went on to join the CEG because the only engineering college in Kerala did not admit women. However, two years after she graduated from CEG, she lost her father. It was her mother, Kunchalichy, who took care of the family after her father's death.



Thresia's parents, Kunchalichy and Kakkappan

Thresia chose to dedicate her heart and soul to her work and never got married. She retired in 1979 after having worked in Kerala's PWD for almost 34 years! Post-retirement, she founded a company called, 'Taj Engineers'.

"I started working at a time when it was rare to find women in the services. However, I have never had to regret the fact that I am a woman," Malayala Manorama quoted the esteemed engineer.

We acknowledge with thanks the article published by Angarika Gogoi

Forthcoming programmes:

**The virtual distribution ceremony of scholarships & endowment to
CET students by CETAAT for the current academic year
Will be conducted on the Evening of
21st November 2020**

**Scholarships to CET students
during their studies at CET for their
B Tech course –**

- *Three day scholars (Rs. 25,000/-per student/academic year) & one hosteller (Rs. 40,000/-per academic year)*
- *Shri TK Nair & Smt. P Sreekumari Nair memorial endowment for the best final year project team from Mechanical Engineering students.*

And our regular programme of monthly webinars on every fourth Tuesdays.