

NEWSLETTER & MAGAZINE

NITWARANGAL

ALUMNI ASSOCIATION

Leveraging the Alumini strength
Creating link with the Alma Mater

Nurturing the students
Staying connected with friends



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(BT ME 15)	





INTERVIEW

Chief Patron NITWAA
PROF. N.V. RAMANA RAO
 Director NIT Warangal

Newsletter and Magazine subcommittee caught up with Prof. N.V. Ramana Rao for an interview. Ever-smiling, he readily agreed for an interview through Google Meet on a Sunday (06.9.2020) at 11 am.

Q: How is the institute functioning in the new normal?

A: Many challenges have been thrown during this pandemic. Our Faculty, staff and students have been very cooperative. On-line classes are being conducted, faculty development programmes have been introduced, hostels were vacated except for a few students from abroad who could not go home. All protocols of safety are being followed. The exams were conducted and the results declared. The final year students who have appeared for exams, will get provisional certificate on time. Unfortunately, we lost one of our faculty members Prof. E. Venkataratnam due to COVID-19.

Q: Could you please let us know about the recent developments that have taken place at the institute?

A: The COVID-19 pandemic has raised lot of issues and concerns. This outbreak has brought about enormous changes in the way we interact with each other. It has drastically affected the social and work environment, creating a lot of concern among people in general, about the physical, mental and economic well-being. Today we are conducting online classes after conducting successful pilot studies. We are trying to equip our faculty with digital infrastructure. We now have our own LMS (Learning Management System).

Our faculty are busy with content creation, digital repository and dissemination to students. They are very active in research as well, handling many projects from the Department of Science and Technology and other funding agencies. Our faculty have developed some products which are useful to the general society like the 'OzoNIT' by the Physics department. Department of Biotechnology has a research project related to Corona virus.

We are trying to address the digital divide, especially for students who do not have access to the internet. There are predominately two issues here, one being the bandwidth and the other being the electrical power. We are trying to find ways and means to resolve the issues.

We are also devising ways and means to carry out the labs virtually. We have been training our teachers for online education. All of our faculty have gone through digital & online training and it has been very effective. The new online semester started on the 3rd of September 2020. I addressed all the students at the beginning of the semester regarding the responsibilities and precautions to be taken with the New Norm.

We believe that Learning is a continuous process and we will ensure that the students' learning is not affected by the pandemic. In fact, the pandemic has thrown many challenges to teaching and learning community and we have devised and evolved effective ways to address the same.

Q: What are the plans for the future?

A: Future is uncertain but we are trying to adopt synchronous, asynchronous and blended modes of teaching. We are exploring ways to have face to face training and virtual labs. We are planning to invest in high-end digital tools, equipment and focussing on training the faculty. The faculty have already published papers in reputed journals. We want to give rigorous training to our teachers so that pedagogy becomes effective. We want to become a quality institution. Our NIRF ranking has improved considerably. One of our strengths is teaching and learning. We want to put a lot of emphasis on teaching and learning by equipping faculty by high end digital equipment so that teaching can be very effective.

Q: How are the Placements for students?

A: Placements have been excellent, with highest package of Rs. 51 lakhs for 2 students. Happy to announce that many companies are coming to the campus and vying with each other to offer competitive packages to the students. The percentage of students placed has gone higher each year and the rest of students would like to go for higher studies or set up their own business. We have excelled in placements compared to many other reputed institutes.

Q: What is the role do you see for alumni in the development of the institute?

A: Alumni relationship are very important for Institution's development and advancement. They are the most loyal supporters of the Institute, in terms of fund-raising prospects and doing publicity through word of mouth in their social & professional network. One of our distinguished alumnus Shri Sudhakar Rao from Gemini group, Dubai, has promised a Rs.1 crore for Tinkering lab to be set up at NITW. I strongly believe that by engaging the alumni, institute can benefit through their skills and experience. They are the role models for the students as they can offer support and guidance to the students on their careers. We do conduct several alumni meets every year but since the pandemic there is no such event this year. We believe alumni are often in a position to engage with Institute in their professional life too since they, being the ambassadors of the institute, radiate knowledge to where they are associated - be it in professional & social networks as the Institute perception is being created by their efforts.

Q: How is the institute reaching out to its Alumni?

A: Maintaining a positive relationship with our Alumni is one of the most important tasks at the institute. We have regular NITWAA EC meets and the institute communicates its progress to the EC. We strongly believe that there are several means and ways in which the Alumni can help the institute, like donating regularly to the annual fund with high single value awards, sponsoring student research projects, endowment lectures etc. We have invited our Alumni to deliver lectures every year. In fact, we have two ongoing lecture series - 'Institute Building Lecture Series' and 'Popular Lecture Series'. In the Institute Building Lecture Series we have institutional leaders, administrators like IIT directors, former Institute directors, eminent persons (awarded Padmashri) and Nobel Laureates who come and address our faculty and students. The popular lecture series is open to all where we share our thoughts on common topics to motivate the students. We had 2 lectures in the series and the 3rd one is planned on the 11th of this month (September) with Mr. Syed Akbaruddin who is a famous Indian diplomat (retired). There are many alumni helping us to increase our outreach, popularity and share their ideas and thoughts with students.

Many among our Alumni have donated books and participated in peer to peer fundraising. They are brokering introduction to create new partnerships with employers, government and other affiliated organisations. I would like to share here that recently, we have established the 'Siemens Center of Excellence' for carrying out latest up-to-date manufacturing technologies. Further, 3 to 4 centers of Excellence will be set up to give thrust to research and keep our students updated with the latest developments in the industry. Our Alumni are constantly providing expert advice to the institute leadership. They have been helpful in supporting home and overseas recruitment of students. They are acting as positive role models to our students. They are actively contributing to the positive national and international public profile of the institute which is great!

MESSAGE

President NITWAA
Shri Arvind Jauhari

BT | ECE | 79



Dear Reader,
Greetings to you!

I am very happy that our Newsletter and Magazine committee is bringing out their first news letter covering NITW & NITWAA activities. I am sure this newsletter will enable our Alumni to be updated about our Alma Mater and NITWAA activities, it will show how important is Alumni bonding. I feel proud in mentioning that RECW (NITW) is the first REC among the chain and NITWAA is probably the largest Alumni Association having 19 chapters in India and 06 chapters internationally, with 34000+ active members.

Let me go back in time to give you the history of how NITWAA began. It all started with our first batch (1964), which was very active after passing out - especially Hyderabad and Delhi chapters Alumni and were meeting regularly after passing out. Dr. N. Janki Ram (Hyderabad), Dr. V.A. Shastry (Bangalore), Mr. S. Sampath Iyengar (Chennai) and Mr. Naresh Ummat(Delhi) need a special mention here for their unending support and motivation to younger batches to keep the regular meets going.

In 1999, taking the casual regular meets forward; RECWAA National body was formed officially under the able leadership of Dr. N. Janki Ram from the first batch (1964). The body had constituted bye laws of RECWAA (NITWAA) and got registered in 2001. In 2003, RECW became NITW and the FIRST INTERNATIONAL MEET was conducted in Delhi, Inaugurated by Prof. Murli Manohar Joshi (the then HRD Minister).

Till date, we all appreciate the contribution of Dr. N. Jankiram, under whose able guidance maximum chapters were formed and RECWAA (NITWAA) bye laws were also framed during his regime. He has been the President for the longest tenure till date. I would also like to thank Mr. Lingga Reddy for his contribution as ex-NITWAA Secretary & President; he not only added Chapters all over India but also sponsored many NITW students for higher studies in his personal capacity.

I feel very proud to mention that our Alumni had or are still holding the highest post in their field in GOI and private Industries. Our Alma mater has produced Padam Shri, MPs & MLAs and has given one US senate as well.

In this Pandemic, when the entire Globe is facing economic down fall and people are losing their lives/jobs, I feel pleased to mention that our Alumni are doing a commendable job. It is worth mentioning that Vijayawada, Warangal, Hyderabad and Mumbai chapters have given full support to underprivileged by distributing food, sanitation items etc. My special thanks to Vijayawada Chapter team for their outstanding support to underprivileged and arranging various hospitals equipments etc.

Last but not the least, I must thank present Director of NITW, Prof.N.V. Ramana Rao for his support and guidance to NITWAA and appreciating Alumni's contribution to their Alma mater.

Arvind Jauhari

After working at various organizations during 1979-98, from 1998 to till date, Shri Jauhari is looking after his own business in India. Name of company is M/s Protech Impex Pvt.Ltd., at New Delhi, which deals in Import & Export of various Engineering items, plant & machineries etc.



MESSAGE

Faculty-in-Charge, NITWAA
Prof. N. Selvaraj

MT | ME | 95
PhD | ME | 04

I am very delighted to inform you that our National Institute of Technology Warangal Alumni Association (NITWAA) has developed with almost 6000 students representing all the corners of the country and about 600 students from over 40 countries studying in a fully residential campus located in a serene environment, the institute has grown from a humble beginning to become one of the most sought after institutes of higher learning. Over 34000 alumni of the institute, spread far and wide, have made their impact in the national and international arena and have become ambassadors of the institute.

The main objectives of the Association are to promote close relations between the institute and its Alumni, promote the interest of the Alumni affairs of the institute, ensure that programs are initiated and developed for the benefit of the Alumni and the institute, and to assist the institute in its development and pursuit of academic excellence.

Many of you from experience would know this is no easy task. The Alumni Association is also continuously faced with this challenging task and we will have to make every effort to accomplish this.

I am proud to say that the Association has had, as members, many distinguished Alumni who have made significant contributions towards Institute Development, Infrastructure Development, Faculty Awards, Chair Professorships, Hostel Development, Student Development, etc. are examples of utilization of these funds for the betterment of the Institute. We invite you to contribute to the Institute's betterment to the best of your ability.

Over the years, the Association has also organized several programmes to create opportunities for our Alumni members to interact with one another and the academia of the institute. There is no doubt that our alumni are our strength.

Prof. N. Selvaraj
Department of Mechanical Engineering
Dean, International Relations and Alumni Affairs (IRAA), NITW

FROM THE

NEWSLETTER AND MAGAZINE

SUBCOMMITTEE

Greetings!!

Siblings (Alumni) and the mother (NITW)!!

From a modest beginning of about 150 students who graduated as the first batch in 1964 to the present number of over 1600 students per year (to reach over 2000 in couple of years) there is an ever-growing need to connect all the alumni (siblings) of NITW with one another and with the mother (NITW) which has nurtured us and groomed us into qualified engineers, scientists and responsible citizens. NITW has over 34,000 alumni. Even though year-wise batches (and branch-wise in a batch) are well-connected through social media, the alumni and institute news across such a big and widespread fraternity is not reaching all. The Newsletter and Magazine proposes to fill this gap.

Success stories of alumni, achievements, profiles, articles on technology and general aspects, start-ups, anecdotes of life at RECW / NITW, Job openings and internships available, reports on alumni chapter activities and announcements on future activities, cartoons, cross-word puzzles etc., are welcome as contributions to the newsletter. The newsletter will carry news (developments, achievements etc.) from alma mater as well. As the newsletter will reach all the alumni and alma mater, communication through newsletter will be easy, quick, beneficial to both, and motivating, inspiring to the young and developing minds at NITW.

Request the alumni to see that their contributions are original and do not attract any copyright infringements. Contributions are to be within 2000 words.

Though utmost care has been taken in publishing the newsletter, if there are any factual discrepancies, they may be brought to the notice of the committee.

Suggestions are most welcome...

The contributions, along with the details of (i) Degree (B.Tech, M.Tech, M.Sc. etc.) (ii) Branch / dept and (iii) pass out year may be mailed to nitwaa.newsletter@gmail.com

Newsletter & Magazine Sub-Committee

Name		Batch	At Present
Prof. A. Venu Vinod	Chairman	BT CHE 90 PhD CHE 06	Professor, NIT Warangal
Shri Sunil Simon	Convenor	BT ME 95	Sr. Sales Manager, Oracle Ahmedabad
Ms. Ramyasree D.	Member	BT BT 12	Sr. Consultant, RoundSqr Hyderabad
Ms. Keerthi Sindhuri	Member	BT CHE 12	Sr. Analyst, Bank of America Hyderabad
Ms. Arti Sengar	Member	BT ME 15	Eco Designing Engineer, Alstom Bangalore

This newsletter has been designed by Shri. M.Y. Yuktresh, BTech 3rd year Chemical Engineering. This Sub-Committee recognises his contribution to the newsletter and expresses gratitude to him.

NITWAA-EC

OFFICE BEARERS [2018-2020]



Prof. N.V. Ramana Rao
Chief Patron
Director
NIT Warangal



Prof. N. Selvaraj
Faculty In Charge
MT | ME | 95
PhD | ME | 04
Dean IRAA, NIT Warangal



Prof. CSRK Prasad
Patron
BT | CE | 86
MT | CE | 88
PhD | CE | 97
Professor, NIT Warangal



Shri. Arvind Jauhari
President
BT | ECE | 79
Own Business
Protech Impex Pvt. Ltd.
New Delhi



Shri. PK Swain
Vice President
BT | CE | 82
CWC Dam Safety Consultant,
Bhubaneswar



Shri. Pushkar Pokhrel
Secretary
BT | ME | 86
Head, SSS Power Services,
Ahmedabad



Prof. A. Sarath Babu
Jt. Secretary
BT | CHE | 84
MT | CHE | 87
PhD | CHE | 16
Professor, NIT Warangal



Prof. Deva Pratap
Treasurer
PhD | CE | 90
Professor, NIT Warangal



Shri. E. Ravi Keshav
Ex-President
BT | MET | 78
Director and Partner,
Stonetek Energy Pvt Ltd,
Hyderabad



Shri. KV Srinivasa Rao
Ex-Secretary
BT | CE | 86
CEO,
Evanik Towers and Resorts
Private Ltd.
Vizag

NITWAA can be contacted at secretary.nitwaa@gmail.com

NITWAA PAST PRESIDENTS

Shri K. Sambasiva Rao

BT | EE | 64
1990 to 1995

Shri N Janakiram

BT | ME | 64
1997 to 2002

Shri Naresh K.Ummat

BT | ME | 64
2002 to 2004

Shri K.Ramakrishna

BT | ME | 87
2004 to 2006

Shri K.Linga Reddy

BT | EE | 69
2006 to 2008

Shri VAP Reddy

BT | ME | 70
2009 to 2013

Shri E. Ravi Keshav

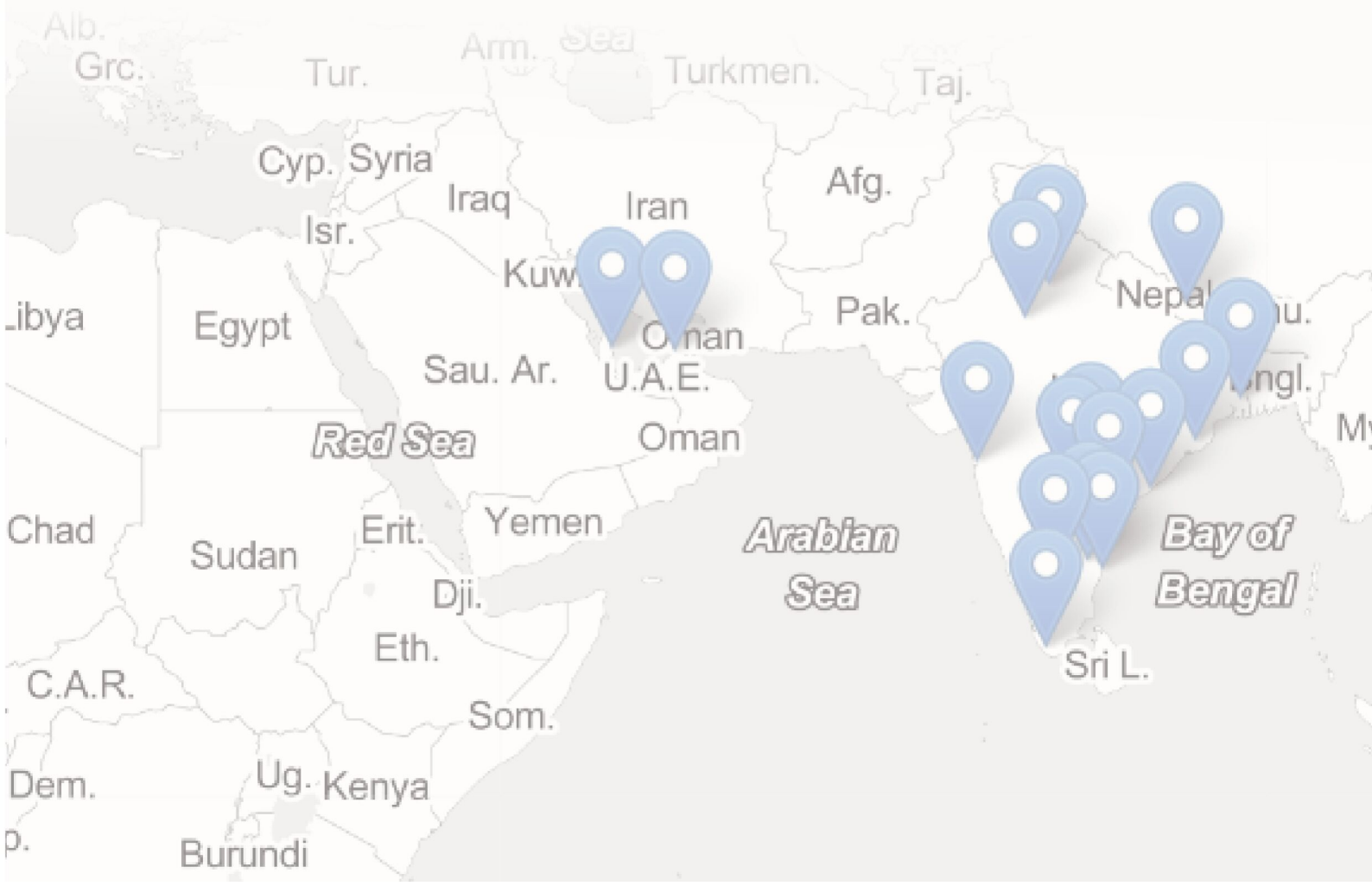
BT | MET | 78
2013 to 2018

Shri Arvind Jauhari

BT | ECE | 79
2018-present

Alumini Chapters

1. ANZ Chapter
2. Bangalore Chapter
3. Bhubaneswar Chapter
4. Chattisgarh Chapter
5. Chennai Chapter
6. Delhi Chapter
7. Gujarat Chapter
8. Hyderabad Chapter
9. Kerala & Lakshadweep Chapter
10. Madhya Pradesh Chapter
11. Middle East Chapter
12. Mumbai Chapter
13. Nagpur Chapter
14. Nellore Chapter
15. Nepal Chapter
16. Pune Chapter
17. Qatar Chapter
18. Rajasthan Chapter
19. Rourkella Chapter
20. Singapore Chapter
21. USA Chapter
22. Vijaywada Chapter
23. Visakhapatnam Chapter
24. Warangal Chapter
25. West Bengal Chapter



Success stories

Dr. V A Sastry
(BT | EE | 64)



Dr. Sastry has an Electrical Engineering degree from REC, Warangal. He holds a Post-graduate degree from Indian Institute of Science and a PhD in Computer applications from the University of Waterloo in Canada.

Since 1985 he is a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE), USA. He is also a life member and the Fellow of Computer Society of India and New York Academy of Sciences. He was the Chairman of Division II (Software) for two consecutive terms. During this period 4 international conferences on Management of Data (COMAD Series) and two International conferences on Software Engineering (CONSEG) were organized.

Dr. Sastry has over 30 years of professional experience in the software industry. He was responsible for a number of software projects of varying sizes in Process control and Simulation fields. He was with Tata Consulting Engineers and Macmet's Simulation system division where he was responsible for building large and small computer based Operator Training Simulators.

This has led him to pursue Quality Management Systems and International Standards in Quality. He was invited to join the Board of Infosys Technologies Ltd, Bangalore where he was the Director on the Board responsible for Quality and productivity. The company was awarded an immediate certificate for ISO 9001 in 1993, which is an achievement,

by any standards. He has published over 20 technical and management related papers.

Dr Sastry is the founder Director of MUSA Software Engineering handling consulting assignments and RelQ software handling independent Verification and Validation projects. MUSA is associated with more than 300 companies consulting them on their Quality and productivity initiatives. RelQ had more than 800 testing engineers handling V&V assignments in India and overseas, at which point it was acquired by EDS in 2006.

In 2007, Dr Sastry was invited to be a Director on the Board of National Stock Exchange, Mumbai. He also advises them on the IT infrastructure related issues.

Dr. Sastry is associated with several philanthropic trusts. Notably he is a managing trustee of Sri Devi Veda Vidyalayamu in Srisailam in Andhra Pradesh. He is a trustee of SIKHANA, an organization dedicated to improve the educational system in the Government schools by improving the morale of teachers and students.

He has also written a book "Unfiltered me - a life of sense and purpose " available on Kindle and Amazon.

Dr. VA Sastry Centre for Innovation and Incubation at NIT Warangal is named after him. He contributed Rs. 1 crore towards the building.

Success Stories

Dr. Sandeep Sancheti
(BT | ECE | 82)



Dr Sandeep Sancheti, known as Institution Builder, holds a Ph D from Queens University of Belfast UK, M.Sc. (Engg.) from DTU Delhi and B.Tech from NIT Warangal.

He is currently the Vice Chancellor, SRMIST, Chennai and also the Past President of Association of Indian Universities (AIU), New Delhi. Formerly he was the President of Manipal University Jaipur, Director NIT Delhi and Director NITK Surathkal.

He has also served as Director In-charge, NIT Tiruchirapally, NIT Calicut, School of Planning & Architecture (SPA) Delhi and Mentor Director, NIT Goa, NIT Puducherry and NIT Sikkim. He started his career by serving MBM Eng College, Jodhpur and MNIT, Jaipur in various capacities and has more than 36 years of teaching, research and administrative experience.

He is a Member of Council, Indian Institute of Science Bangalore. He is Chairman Board of Governors for MLV Textile Engineering College, Bhilwara and Jodhpur Institute of Engineering & Technology, Jodhpur. He is also serving different professional bodies like SPIC MACAY, FICCI, CII, EPSI, Atal Innovation Mission etc. in different capacities. In addition, he is on various national level bodies of UGC, AICTE, AIU for higher education related matters and has been a part of Indian delegations abroad. He is a recipient of the Commonwealth Scholarship

& Fellowship under Colombo Plan and was a Visiting Faculty at Asian Institute of Technology (AIT) Bangkok. He is a Life Fellow of IETE, IE (I), ISTE, BES and a Member of IEEE, USA and has contributed more than 80 research papers in journals and conferences.

He was honored with Distinguished Alumni Award in 2017 by NIT Warangal.

In past he was a Member of XIIth Plan Preparation Committee for MHRD, Member Kakodkar Committee for Review of NITs, Member Governing Council - ESCI Hyderabad, Member Executive Council - AICTE New Delhi, Chairman AIEEE, Chairman DASA Scheme of MHRD, Chairman QIP (Poly) Scheme of AICTE, Member Governing / Advisory Boards of CBSE New Delhi, BCCI Mumbai, SAI New Delhi, NCTE New Delhi, NIRDPR Hyderabad and Academic Advisory Board of Microsoft India etc.

He is a keen player of Bridge & Squash and is an active member of Rotary few other social organizations.

Success Stories

Shri Gaurav Sharma
(BT | CHE | 10)



Gaurav Sharma is a serial entrepreneur and angel investor in both India & US startup ecosystem. He built & sold two technology businesses in US in 2012 and 2016. The last one was acquired by New York Times. Currently, he is running SaaS Labs Inc, a 70-people globally distributed team that builds B2B software for SMBs around the world. In 2019, Deloitte ranked SaaS Labs as 5th fastest growing technology company in India and 54th in APAC.

As an angel investor, he has invested in a dozen fast-growing technology startups. Gaurav Sharma was honored with the Distinguished Young Alumnus Award in 2017.



infogaufire@gmail.com

@sharmag88



SPROUTS

Featuring alumni start-ups

Trademanza

Trademanza is an android platform aiming to bring awareness among people about financial markets through interesting games, news articles, learning modules and quizzes. We at Trademanza, believe financial knowledge is one such essential that is often ignored since childhood. It contains interesting games where the user has to create a portfolio by selecting a few stocks and their performance shall yield user points. By playing this daily, users shall get in detail with the basis for investing using our learning modules, news feed and trends of the stock. In the long run, one shall develop the skill of managing one's assets by investing in the right place- a pure quality of an entrepreneur.

Trademanza is available on playstore too!

website: www.trademanza.com

Trademanza Team

Sai Karthik Kurnutala- Cofounder, Ops: BT | ME | 14

Pratik Pawar- Cofounder, PR: BT | ME | 14

Gaurav Kumar- Cofounder, Tech: BT | CSE | 14

Storepersft

Storepersft is an exclusive space solutions marketplace for Warehousing and Commercial spaces

- It's re-invention of the existing marketplace to provide seamless, time-saving and effective solutions for all kinds of space needs.
- Be it Space sourcing or Space setup or Maintenance, we provide all of this and much more at on click and one place with StorePerSft tailor-made solutions.
- Providing convenient, smart and custom space solutions to cater to various space requirements is what we aim to do. It is our constant enterprise to provide completely scalable and easy to use services all under one roof. Our services include Fire Safety, EPC, Storage systems, Lean Consulting, Facility management, Interior & Fit-outs, Legal Services, Insurance, etc.
- Therefore, right from how it works to the last mile management every step is accessible to you at your fingertips.
- Intending to provide more than just space, we also offer continuous support and be the extended team.

It has become a leading Space Solutions Marketplace providing Custom and Integrated Services for all the Dynamic Space Requirements leveraging Technology and Data.

website: www.storepersft.com

Storepersft team

A.Pruthvi Raj: BT | BT | 13

B.Naresh: BT | BT | 13

K.Premchand: BT | BT | 13

SPROUTS

Featuring alumni start-ups

Pickmycloth

Pickmycloth is an e-marketplace for handloom products. We aim to bridge the gap between weavers and the customers by eliminating the middlemen. Our products are handmade, and each design is exclusive with the best quality.

Pickmycloth strives for the empowerment of the weavers, rural India, and the customers. All the products are available for International delivery. We aspire to show the world how Indian handloom will be a robust competitor to the International brands. We enable customers to choose from our wide variety of choices and access clothes which they have never imagined.

Pickmycloth assures its customers the best quality products which undergo standard quality checks. We also undertake bulk orders for marriages, corporate gifting.

Website: www.pickmycloth.com

Pickmycloth Team

S.Dinesh: BT | CHE | 14

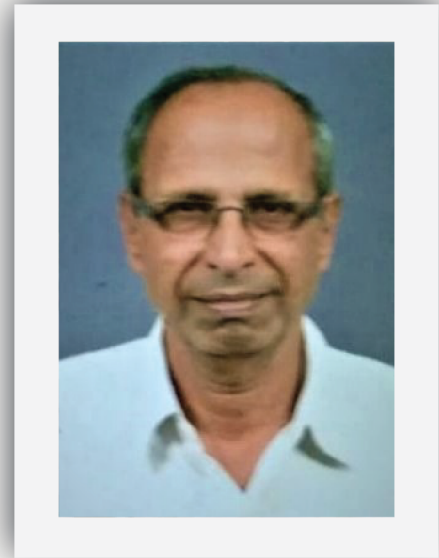
M.Kalyan: BT | ECE | 14

P.V.Abhishek: BT | BT | 13

ARTICLE

Shri P. R. Iyer
Ex AGM of NTPC.

JOINING RECW in 1961



BT | EE | 67

The boy was just 15 (DoB fudged in Elementary School) and was sent to Kazipet all alone. The fees - 4xx rupees was sewn inside his socks and clear instructions every step from Central, Madras to Kazipet. He had a railway pass by virtue of the employment in Railways of his father. Therefore, he travelled in upper class while most others did in cattle class. He was standing on the platform of Kazipet Railway Station in the middle of the night as he watched GT Express reversing to go to New Delhi. In Madras he had lost almost all his loose money, thanks to the taxi driver from Egmore to Central who took most of it. The safely tucked money for fees remained untouched. Those days trains would enter Kazipet and change direction to go to Delhi. In fact, from Madras there were only two express trains; the GT and Janatha.

The boy went into the upper-class waiting room, locked the trunk to the iron legs of a fixed chair and went to sleep. After some time, he heard another train steaming in and more people entering the upper-class waiting room. He kept the foot on the trunk and slept again.

Around six the porter woke him up saying hurry up if you want to have a bath. He waited for the porter to leave and looked around. There was an elderly gentleman sleeping in the easy-chair and a youngster watching him. He requested the elder "Can you please take care of my things? I shall have a bath and come back." He went fully clothed into the bath room - loaded with change dresses under-

clothes, key for the chain lock, key for the trunk, tooth paste, brush, soap box and a comb (most of them were listed in the interview letter from the college).

Fortunately, the bath room was built by British and was very spacious. He could undress and wash the face, brush teeth and take bath without wetting the change dresses, shoes and socks with the money sewed in. He dressed up in haste, came out and packed everything back and squeezed the wet towel as much as possible and inserted it between the rope and the bed roll (as per instruction by grandmother). He had total 70 paise, 25 paise for two idlies, 10 paise for tea and 25 paise for the rikshaw to reach the hostel opposite to Hanumkonda water tank. He felt great, but the problem was how to go and eat idlies leaving everything in the waiting room.

That elderly gentleman woke up saw him and smiled. He said "Good Morning, Sir" (Taught to me in my Moral Science class in St. Josephs College.) He asked the boy in Hindi "Going somewhere? Where are your parents?" The vacation trips to various places and some Hindi classes came to his help. He replied in Hindi "I got the interview letter from the Regional Engineering College, Warangal. So, I came. Thank you, sir." The elder was surprised. "Alone?" he asked. He felt very proud. He said in Hindi "Sir, my father had gone on tour and my mother had gone to help my aunt. I was with my

grandmother when the interview letter came. She and my neighbours gave me all the instructions to reach the college. My mother had written a long letter giving me instructions for every step. I follow those instructions and here I am. Thank you, Sir. "

The man rang the bell and a waiter came in. This gentleman was some high official in railways. Even the station Master came to wish him good morning. Now the boy was confident. He can ask him to take care of the luggage and go for the idlies. The boy requested him but he said "Just sit there till we finish our bath and get dressed". The boy said "Ok Sir, I shall take care of your things till you come back." They went for freshening up and came out after 15 minutes. Then when the boy got up the elder said "Sit down, what will you have for breakfast?" He said "Two idlies and a tea". He said "What?" The boy said "Sir I have 70 paise balance of the money given to me to reach the hostel. Interview letter said that I have to pay 25 paise for the rikshaw to Water Tank hostel. The gentleman said" sit down and have breakfast with us". He called the waiter and ordered quite a few things. The boy got scared, he had just 70 Paise only. The gentleman had ordered Idlies, dosa and Coffee and he told the boy to keep the seventy paise for other expenses.

The boy came out and there were curious looking Cycle-rikshaws - low slung ones, very different from those in Madras or Trichy. The cycle-rikshaw man loaded the luggage in one and asked the boy to ride in that. The road took a turn and, on the left, there was a small hillock with a structure on the top. The rikshaw driver said "Water Tank" and the boy was surprised. First time he was seeing a water tank like that. The rikshaw took a right turn and entered a colony of small hutments. The rikshaw drivers knew the procedure and stopped in front of a house. He said "Go get your room number, I will wait". He went in and showed his Interview letter. The person inside said "I am Appayanna. Your Interview is tomorrow at polytechnic. You just stay in the next house till you get a permanent allotment. Bhujanga Rao will be the Warden and he will allot the rooms." The boy was confused, but he came out and went to the rikshaw. The rikshaw fellow took the luggage and went to a house nearby and kept them inside.

The boy was told that the dining hall would open at 12 and you can have lunch. He went to the room and cried and cried till collected a bucket of tears (It looked like that). He heard a truck and came out. Lot of students jumped out of the truck and some

went to the dining hall for lunch. Three hefty looking guys came towards the boy. Two were Sardarji's and one a real huge guy. They asked him "Have you come with your brother? Where is he?" The boy was shivering. He said "No Sir. I have come for interview. I can show you the letter." They called two more guys. Already the boy's legs were shaking. The huge guy said "I am Ummat.

These two guys are brothers and we are from first batch." They did not know what to do. Then a lean sprightly guy came, Ummat said "Hai...CV! Come here. This guy has come for an interview. Can you believe it?"

There he was just short of 5 feet very lean and was in "Half Drawers" as they called them those days. In spite of that bucket of tears already shed due to homesickness his eyes were filling up. He never knew he had so much tears within him. He blinked to keep the tears back. CV came to us. He seemed to be some kind of a leader. Later the boy learnt that he was the Captain for the college cricket team. He asked "What is your name?" "I said "Srinivasan Sir. Thank you, Sir" All of them roared into laughter. He never knew my name could create so much mirth. Two drops fell out of the eyes, but stood erect. Then Ummat "What is your height?" I said "4 feet 11 inches Sir. Thank you, Sir," another roar of laughter. Then I realised that they were laughing at those "Thank You Sirs". So much for the Moral Science classes where we were taught "Remember three Golden Words - Please, thank you and I am Sorry. Use them as much as you can. You will not get into trouble." So, he said "I am sorry, Sir", again huge laughter. Then CV said "This is not ok. He is just a child. Let us not trouble him anymore." He asked him in Tamil "Are you ok?" Greatly relieved he said "Yes Sir" and just stopped the "Thank You Sir", again a huge laughter. This time he joined the laughter. Ummat said "Bachcha hai, look at his laughter ". He said "Have lunch with us and be with us. Other guys won't rag you and we will be ragging other guys. We shall have evening snacks and coffee in the canteen. We shall leave for our hostel at Warangal Azaam Jahi Mills. Tomorrow this same truck will take you for the interview and do well to pass the interview."

Next day he got up early washed and had a good breakfast and dressed for the interview. He came out to find that he was the only guy, less than five feet wearing a brown pant, white shirt, black shoes, money stitched socks and a red tie. Yes, a Red Tie. (It was as per instructions given at home - should be well dressed with a tie neatly knotted and three

day ?training was given on knotting a tie properly) Other boys kept away from him. We went to the Polytechnic and first Andhra students were interviewed followed by Tamilnadu students. He was asked to stand in a queue as per the ranks. He heard the name Rajamani Iyer first rank, then TMS Raghavan second rank, K Narasimhan third and Radhakrishnan fourth and so on. He was not the topper and definitely not the top four.

Then one guy said "They call 20 and will select 16, so be careful", he was finished. He got rejected at Madras University, Annamalai University and Sayajirao University at Baroda. He was sure that he shall be thrown out. He closed the eyes and chanted "Rama Rama Rama..." Suddenly his name was called and he literally ran. Inside there were four elderly gentlemen there and Appanna was one among them. He said "I told you about the boy who had come for admission, this is him". The Principal (I knew later) asked "What is your height?" He said "4 Feet 11 sir, but still growing." They laughed. The boy felt that his height or lack of it was causing mirth all over. Someone else asked "Can you handle a sledge hammer?" He said "Yes sir. I am good at it. I was the person at home to hit the nails on the wall with a hammer to fix all the photographs." Again, a roar of laughter, they had asked about hammer and he had answered. But later he realised the bloomer when they gave him a sledge hammer in the smithy workshop. He asked "Has your father come with you?" He said "No Sir. I came alone"

Then the Principal said, go to the office and pay the fees and other charges. Then go to the stores and collect the stationery. "Soon the classes will start at Hanumkonda hostel after tomorrow". The boy said nothing and stood there. The principal asked "What else?" The boy asked "Am I selected Sir? I have to tell my mother." Again, a roar of laughter, he said "Yes, write to your mother, study well, grow up as you have promised and handle the sledge hammer well."

He nearly shouted "Thank you Thank you" and literally ran out of the room. Now there was a problem because the boy had to find a toilet. On the way to office he asked the peon "Where is the toilet?" He directed me and I locked myself in and took out my shoe, removed the socks and took out a blade concealed in the inner fold of my tie. He cut the stitches and took out the money from the socks. He wore all back and ran to the office. The boy was on top of Everest - had come alone and got a seat in Engineering college. The boy also paid his fees got slips for various things and the roll number 713.

Before he could get his Roll, number there was a request from another candidate. "

"Please let me stand ahead of you". The request looked innocuous. After all the admission stood confirmed." "Sure" said the boy. Had he not let the intruder to jump the queue, his number would have been one less and considered more auspicious by orthodox ones.

That is how the young folks faced the world in yester era.

Shri Rajamony Iyer worked with AP Electricity Board and NTPC till 2004. Later offered consultancy services. Now plays shuttle and is enjoying life.

ARTICLE

Dhadesugoor R. Vaman
Senior Executive Director
DRJ Telecom Inc.
USA

5G EVOLUTION

Myth and Reality in Wireless Networks



BT | EE | 70

1.0 Overview

Wireless Networks both in terms of Local Area Networks and Mobile Networks have evolved significantly in the 20 years. The evolution is more due to engineering feats and not due to customer looking for high bandwidth. As end user devices became smart, the applications required increased speed of data transmission. Considering the initial starting point using Global System for Mobile communication (GSM) and Code Division Multiple Access (CDMA) system were deployed in early 1990's with a typical data transfer speeds were 9.6 kbit/s. In a span of 20 years, the Long Term Evolution (LTE) with 1 Gbit/s data transfer speed (Theoretical) was invented. In addition, combining LTE with WiFi wireless Local Area Networks has evolved into spectrally efficient wireless environment to enable transmission of high-speed data. Fifth generation of or 5G communications created a race among global telecommunications companies.

How do we cope with this kind of rapid changes in data rates?

This paper addresses the myth and reality in the evolution.

2.0 How does Modern Wireless Technology Affects Us?

GSM and CDMA technologies provided 9.6 kbit/s

data transfer rate for users. The IEEE 802.11 wireless LANs provided 1.024 Mbit/s initially before increasing to 2.048 Mbit/s. LTE offered 1 Gbit/s. It took 20 years to go from GSM/CDMA to LTE-A. This increased data transfer rates are achieved with larger unlicensed spectrum coupled with spectral efficiency. The network operators introduced end user application, "pagers" allowing people to connect freely, but this application provides one way communication. The evolution of 3G and 4G systems brought significant changes to the wireless world. The end user devices became smart telephones supporting both voice calls and mobile computing. End users could use smart telephones for browsing webs, download files, exchange electronic mails, and download video games. This has been made possible with networks offering increased data rates. The networks implemented spectrally efficient (bits/second/Hz) transmission within a narrow bandwidth with improved modulation and demodulation techniques that allowed higher data rates. As the number of users with smart phones increased, the spectrum became fully occupied. Further evolution required either increasing the spectral efficiency or find new spectrum or both. Universally, the biggest change in wireless evolution is to increase the spectrum by using Orthogonal Frequency Division Multiplexing (OFDM) where orthogonal Radio Frequencies (RF) are closely spaced within a narrow spectrum. Since the RF frequencies are orthogonal, they do not interfere with each other.

They end user information modulates these RF frequencies using Quadrature Amplitude Modulation (QAM). The information is recovered using demodulators at the receivers. The QAM modulation typically allows 8 bits/ symbol which is much higher than the modulation used in previous generation cell phones.

Similarly Indoor WiFi LANS are increasingly becoming popular in every home and it is also capable of delivering much higher data rate of transmission. Typical data rates that are used include 600 Mbit/s. The output of indoor WiFi network is connected to external cable or 5G networks for INTERNET services.

Voice calls are no longer dominant in the network as once it was. the data and video services are very dominant today.

In many countries, spectrum has been made available at millimeter wave frequencies from 30 GHz to 300 GHz to allow more users and more data/user to be provided for commercial services.

3.0 What are the Applications supported by the Smart Phones

One of the arguments for 5G network is the bottleneck in 4G networks. But, most of the applications can still be supported by 4G Networks. Thus, the bottleneck in 4G is a myth. Network providers keep pushing for 5 G networks to generate more revenues.

An evolving application is the Internet Of Things

(IOT) where objects or human with unique identifiers automatically exchange their data over a network without human to human interactions. By 2020, it is estimated that there will be 50 billion connected devices on IOT application. That is each person will have 6.58 connected devices. The network providers justify 5G Networks for this application with data rate of 10 Gbit/s.

The spectrum that is being used for 5G Networks is Massive Multi Input and Multi Output (MIMO). It uses more than 100 antennas with spatial multiplexing and beam forming that allows spectral efficiency of 100 Bits/second/Hz which is 10 times more than current MIMO technology.

What is missing in the discussion is the cost per user when services are offered with these networks. The applications such as IoT, Big Data Transfers can become prohibitively expensive, even though the network providers want to offer 5G, the users may have second thoughts. We have not come to this stage at this time.

By and large most users are able to support their applications in 4G networks with spectral efficiency of 10 bits/second/Hz.

The next question is whether hardware exists to achieve spectral efficiency of 100 bits/second/Hz for 5G networks. This can occur in the base stations, but not in the smart devices of the users.

The manufacturers of smart devices may not be ready to produce smart devices that can directly communicate with a 5G network interface.

In conclusion, we still do not have answers for the end users how and what applications require supporting 5G network evolution.

Dhadesugoor R. Vaman is the Chief Executive Director of DRJ Telecom L.L.C. He has more than 50 years of research, project management and executive management experience in the field of telecommunications and networking

COVID-19 ACTIVITIES



Hyderabad Chapter

Groceries distribution activity done by our Hyderabad chapter for the poor / needy people. Our Hyderabad chapter members distributed in lockdown period with high dedication by maintaining social distance.



Mumbai Chapter

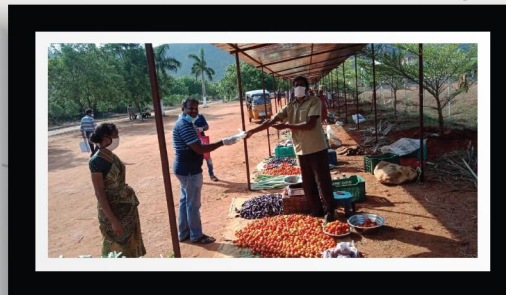
Due to the ongoing Pandemic Covid-19, RECW-NITW-AA (NITWAA) Mumbai chapter committee had contributed one full day meals, masks along with sanitizers to the Desire Society, Vashi Navi Mumbai on 8th April 2020. Desire society, an Voluntary organization working for health and development of orphanage children.



Vijayawada Chapter

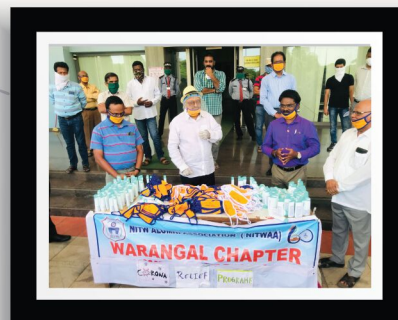
Donated one lakh rupees to the District Collector for food arrangements to the poor. Donated total 70 nos of beds to Government hospitals at Vijayawada, Tenali and Palakollu.

COVID-19 ACTIVITIES



Vizag Chapter

Distributed about 1000 numbers of kits to the frontline COVID-19 warriors. Each kit consisted of sanitizer, masks and hand gloves.



Warangal Chapter

Warangal chapter donated food items and kits (sanitizers, gloves, masks) to Municipal workers, institute temporary and hostel staff, police personnel etc. About 500 people were served during the lockdown period.

O B I T U A R Y



Bhaskar Ghosh
Left us on: 03/07/2020
BT | ME | 94
Deputy General Manager
Samsung India Electronics
Udaipur



B Panya Naik
Left us on: 13/08/2020
BT | CE | 91
Executive Engineer
Telangana Agro Industries Corporation
Hyderabad



Dr. E Venkata Rathnam
Left us on: 20/08/2020
Ph.D | CE | 07
Professor
Dept of Civil Engineering
NIT Warangal

If the people we love are stolen from us,
the way to have them live on is to never stop loving them

Alumni In Tinseltown



Ramajogaiah Darivemula

BT | ME | 91

Ramajogaiah Darivemula also known as Ramajogaiah Sastry Darivemula was born on 15th June 1970 in A.Muppalla village in the state of Andhra Pradesh, India. Ramajogaiah, the only child to (late) Mr. Surya Prakasa Rao and (late) Mrs. Saraswathamma, has graduated with a Bachelor of Technology in Mechanical Engineering from National Institute of Technology, Warangal and Masters in Metallurgical Engineering from Indian Institute of Technology, Kharagpur, both institutions of very high repute in India.

After working as an Engineering professional for over 14 years in Organizations such as Best and Crompton, Kirloskar Electric, General Electric and Regal Beloit Technologies, Ramajogaiah had to answer the calling of his artistic self when he moved permanently to the pursuit of his inspiration of penning lyrical expressions in Telugu language. And in the period from 2004, he has risen to be a renowned poet and lyricist in Telugu with an emphasis on film-based scores. Ramajogaiah contributed lyrics for more than 1200 songs for Telugu movies and is currently regarded as one of the leading lyricists in Telugu film industry. His distinct style of creating catchy and trendy lyrics in contemporary language and of capturing philosophical messages in simple words has led to a unique identity for his works. He has worked for all majors in film industry and is currently seen as a "must-have" for all Telugu movies made by leading production houses and featuring major box-office stars. Some of his hit songs include films like *Baahubali: The Beginning*, *KGF*, *Viswaroopam*, *Alavaikunta Puramulo*, *Bharath Ane Nenu*, *Mahanati*, *Khadi 150*, *Srimanthudu*, *Oopiri*, *Janatha Garage*, *Legend*, *Dhookudu*, *Ready*, *Dhee*, *Ek Niranjan*, *Khaleja*, *Mirchi*, *Gabbar Singh*, *Evadu* and *Run Raja Run*.

Filmfare Award for Best Lyricist - Telugu for Mahesh Khaleja (2010)

Filmfare Award for Best Lyricist - Telugu for Janatha Garage (2016)

Won Best Lyricist Maa Music award(2013 for 2012 films) for Endukante... Premanta!

2011: SIIMA Award for Best Lyricist for "Guruvaram March" - Dookudu

Nandi Award for Best Lyricist for the song "Srimanthuda" from the movie Srimanthudu in 2015

Nandi Award for Best Lyricist for the song "Pranaamam Pranaamam" from the movie Janatha Garage in 2016



Madhura Sreedhar Reddy

BT | ME | 94

Sreedhar Reddy Komalla also known as Madhura Sreedhar Reddy was born and raised in Warangal. He is a B.Tech Mechanical Engineering graduate from 1994 batch. He completed his MS (Research) from IIT Madras and received Gold Medal for his excellency by Vice President of India. He worked in many multinational companies like TCS, Infosys, Wipro and Tech Mahindra and countries like South Africa, Switzerland and USA for 12 years.

Then, he wanted to pursue his passion in filmmaking. Firstly started a music label called Madhura Audio, where he buys copyrights of music and distributes the songs in all platform like radios, youtube and different music apps. Now Madhura Audio is second largest Music Label in Telugu Film Industry.

He started his filmmaking journey by directing a movie Sneha Geetham which is acclaimed critically and won him best debut director award. Then he directed It's My Love Story and Backbench Student. He also produced movie like Maaya, Ladies & Gentlemen, Oka Manasu, ABCD and Dorasaani.



Shreya Dhanwanthary

BT | ECE | 09

Actress in Hindi and Telugu films :-

In Telugu: Josh, Sneha Geetham

In Hindi: Why Cheat India

A PSA: Anti-Cyberbullying (in association with Mumbai police)

In Webseries / Short Films: The Girl in Me, Ladies Room, The Reunion, The Family Man, A Viral Wedding

Participated in Femina Miss India South 2008 when she was a third year engineering student. She placed 1st Runner-Up in the event. After that she went on to compete at Miss India 2008 as a finalist.

Popular brands endorsed by her include Airtel, Pantaloon, Safi, Provogue, Vogue Eyewear, Gitanjal Maya Gold jewellery, D'damas jewellery, Jashn Sarees and Liberty Footwear



Kartikeya Gummakonda

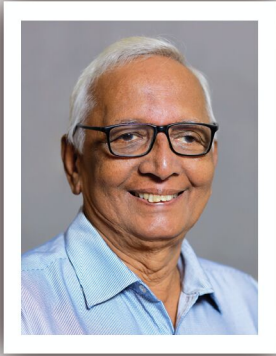
BT | CHE | 14

Actor in Telugu movies :-

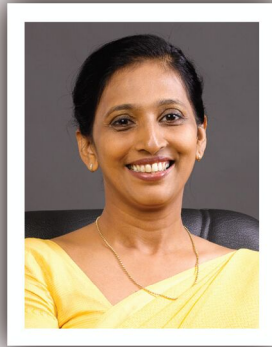
As a Lead: Prematho Mee Karthik, RX 100, Hippi, Guna 369, 90 ML

As a villain: Gang Leader

THREE FROM FAMILY



Mr. CP Philipose
BT | EE | 67
Chairman,
Sevana Group of Companies.
Kerala



Ms. Binu Philipose
BT | CHE | 91
Managing Director,
Sevana Medineeds Pvt Ltd
Kizhakkambalam, Kerala



Mr. Biju Philipose
BT | EE | 93
Managing Director,
Sepack Lanka Pvt Ltd, Sepack FZE,
Kizhakkambalam, Kerala.



Prof. K Subba Rao
Physics Department, NIT Warangal
Service Period : 1962-1992



Sridhar Kunisetty
BT | CSE | 89
Equinix, Sunnyvale,
California



K V Ramakrishna
BT | CSE | 91
Private Equity,
Kotak Investment Advisors Ltd
Mumbai



Name: Sunil Kunisetty
BT | CSE | 94
Oracle Corporation,
Santa Clara, California

THE COLLEGE DAYS



Ms. Arti Sengar (BT | ME | 15)

Those were the best days
I feel whosoever lived it would say
Always finding more reasons to stay
Those were the days we used to play

Those were the days we did bunk
Most dinner we ate junk
And sometimes we were also drunk
Those were the days we were never in state of funk

Room used to be the favourite place
To the early morning class we used to race
At different fields we all used to ace
Those were the days all challenges we did embrace

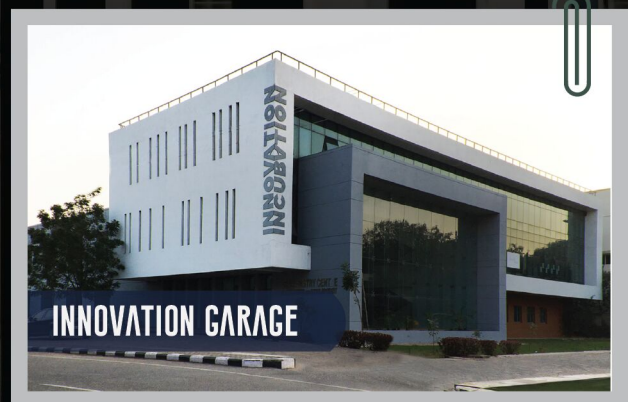
Memorable were the technical fest
Participating in several contests
And they were rewarding the best
Those were the days we never failed in any test

Relaxing were the cultural events
Watching movies in auditorium , time we had spent
Solutions to the problems we could invent
Those were the days we had peaceful intent

We remember the late night talks
Writing something funny on friends t-shirt with the chalk
The heart only know to how many youngsters it did stalk
Those were the days, we had a steady walk

Hardly our room used to be neat
Who can ever forget the final year job treats
The only reason to leave college was Warangal's heat
Those were the days for which the heart still beats

Some of us got friends for life
Some even got their husband and wife
Happiness was at rife
Those were the best days of our life



GLIMPSES OF NIT WARANGAL

Vision

"Towards a Global Knowledge Hub,
striving continuously in pursuit of excellence in Education, Research,
Entrepreneurship and Technological services to the society"



NITWAA