





# NIT WARANGAL





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1. From the Newsletter and Magazine subcomitte	3
2. Messages	4-6
3. Profile	7
4. Interview	8-9
5. Acknowledgements	10-12
6. Retirement	13-14
7. Chapter news	15-22
8. Articles	23-27
9. EC Meeting	28
10. Congratulations	29
11. Success	30
12. 3 From Family	31
13. Success Stories	32-34
14. Spring Spree'23	35
15. Quiz	36
16. Obituary	37
17. Poem	38
18. Giving Back	39











# FROM THE NEWSLETTER AND MAGAZINE SUBCOMMITTEE

The Newsletter and Magazine Subcommittee offers greetings to our Alumni and family members. It's been a while since we have published the NITWAA Newsletter and Magazine, we are happy to bring out the tenth edition.

This newsletter and magazine contains NITWAA Chief Patron & NITW Director's Interview, Message from Office bearers of NITWAA Executive committee, Alumni Success Stories, Articles, NITWAA Chapter News, Spring Spree 2023 brief and an Electrical Engineering Quiz to stimulate our grey matter.

Hope you find this newsletter and magazine enthralling, also request you to share and broadcast with our Alumni and Batch friends on social media. We also seek constructive feedback on our content and encourage you to post articles, contribute insights particularly in Technology and Fine Arts areas to our email nitwaa.newsletter@gmail.com within the limit of 2000 words.

Please do ensure that there is no copyright infringement and also do mention your details (i) Degree (B.Tech, M.Tech, M.Sc. Etc.) (ii) Branch / Department (iii) Pass out Year

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

#### **NITWAA Newsletter & Magazine Subcommittee**



Arti Sengar – Member BT/ME/15 Eco Designing Engineer, Alstom, Copenhagen, Denmark



Dr. S Shankar - Member (MT/CE/06), (PhD/CE/12) Associate Professor, NIT Warangal



Sunil Simon - Convenor BT/ME/95 Business Development Manager, Amazon Web Services (AWS), Ahmedabad



Seshu Kumar Mangalapalli BT/ME/00 Global Team Lead – SAP OTC, Solenis GSS India Ltd



Srinivas V Alturi – Convenor (International News) BT/ECE/83 Lead Performance Engineer, SAP SuccessFactors, USA



Dr. A Venu Vinod
Chairman
BT/CHE/90
PhD/CHE/06
Professor, NIT Warangal

This newsletter has been designed with the support from student Mr. Arsh Ansari (Integrated MSC/MATHS/27)



#### MESSAGE FROM PRESIDENT, NITWAA





Radhey Shyam Mamidi
BT/ME/86
President, NITWAA
Founder, Natsoft Asia
Industry, Management and IT Consulting Experience,
Partner & VP at IBM / PwC

Dear All,

It gives me great pleasure to address all fellow alumni through this newsletter - the first one in 2023. As the President of NITWAA, my Vision is to strengthen the NITWAA Brand through Expanding our reach to the Alumni globally, Connecting closely with Industry and Corporates and finally Usage of technology.

We are planning to release a new Mobile responsive NITWAA App, which would become a single source of truth from Enrollment to running the entire activities of NITWAA. This App has the features to run campaigns as needed to connect with relevant and interested Alumni, say for an Industry Collaboration, Research activity, funding and contribution for needy alumni. A digital Alumni ID Card would be issued to each of the registered and validated Alumni and that signifies the first step towards our NITWAA Branding. Through this single NITWAA App, we can find and connect with Alumni by location / batch / branch / chapter and a central repository for all content creation and sharing. We would also use this application to help students for internships and employment, while also helping each other in our careers and entrepreneurship.

We encourage every alumni to come forward and participate in this journey and which helps in strengthening the bond among the alumni and collectively being able to carry out significant activities for NITWAA for the 3 key stakeholders namely Students, College and Alumni.

As we face some turmoil in the first half of 2023, I wish you all good luck to sustain and grow in your fields, be on the watch to help each other as needed.



#### MESSAGE FROM VICE PRESIDENT, NITWAA





Aditi Bhattacharya BT/ECE/94 Vice President NITWAA Vice President, Jio Platforms

I am glad to see the first edition of the NITWAA newsletter of 2023.

The past few years have been tumultuous for all of us due to the pandemic, but it is heartening to note that the NITWAA family continued to thrive and grow and hold each other's hands during these troubled times. The future holds a lot of promise - we have a 30k+ strong body of alumni, and NITWAA is committed to bringing every single alumnus into its fold.

The potential for alumni is huge in connecting through NITWAA. For instance, alumni could tap into research opportunities with NITW and students, partner with fellow alumni for entrepreneurship or collaborative projects, incubate start-ups by fellow alumni or solicit seed funding for their own start-ups, find/become a mentor or even find an employee/employer through the alumni network. If nothing else, the joy of speaking to a fellow alumnus about one's experiences on the NITW campus is the least one can expect!

It's my earnest desire, as part of the NITWAA Global Executive Committee, to enable this connectedness among alumni. The NITWAA newsletter is one such endeavour in this direction.

As always, this edition lives up to it's promise of bringing to us alumni news worldwide and also talks about exciting happenings on the campus. My best wishes to my fellow alumni and hope you enjoy reading this as much as I did.









Prof. D. Ramaseshu
PHD/CE/95
Professor of Civil Engineering
Dean (International Relations and Alumni Affairs)

#### Dear Alumni,

I hope this message finds you all doing well and thriving in your respective careers and personal lives and making a positive impact in all spheres of your life.

As the Alumni Dean, I am honoured to be able to connect with all of you and Congratulate NITWAA for bringing out the newsletter to keep you informed of the latest developments and happenings within our alumni community.

In addition, our alumni network continues to expand globally, with new chapters being established in various regions. These chapters provide opportunities for alumni to connect with one another, network, and support each other in their personal and professional lives.

Lastly, I want to encourage all of you to stay connected with your alma mater. We at NIT Warangal always welcome your feedback, suggestions, and ideas for events and initiatives that can strengthen our alumni community.

Thank you for your continued support, and I look forward to connecting with all of you soon.

Sincerely,

#### **PROFILE**

#### Prof. Bidyadhar Subudhi

Director NIT Warangal and Chief Patron NITWAA



- Bachelor degree in Electrical Engineering from the National Institute of Technology Rourkela (1988).
- Master of Technology in Control & Instrumentation from Indian Institute of Technology Delhi (1994).
- PhD degree in Control System Engineering from the University of Sheffield, UK (2003).

#### Previously:

- Professor in the School of Electrical Sciences and Dean (R&D) at IIT Goa
- Professor, Electrical Engineering, Dean (Alumni Relation & Resource Generation), HoD, Electrical Engineering at NIT Rourkela.
- Visiting Professor at the Univ. of Saskatchewan, Canada and in Asian Institute of Technology, Bangkok.

#### **Awards / Honors**

- Recipient of the Prestigious Samanta
   Chandra Sekhar Award of the Odisha Bigyan
   Academy, Govt. of Odisha.
- Distinguished Alumnus Award, NIT Rourkela.
- Fellow of the Indian National Academy of Engineering, Asia-Pacific Artificial Intelligence Association, IET (UK)
- Distinguished Speaker for ACM.

#### **Others**

- Technical Committee Member of the IEEE Technical Committees on Intelligent Control, IEEE Consumer Electronics (Power and Energy), IFAC Computational Intelligence in Control, Steering Committee Member of the Asian Control Association, Member of the IFAC Council, and Vice-Chair of the IEEE Technical Committee on Consumer Electronics (Power and Energy). Editor with IEEE Transaction on Sustainable Energy, IEEE Systems Journal, IEEE Access and IET Electronics Letter.
- Research interests include System & Control, Control of Power System, Embedded System and AI & Machine Learning.
- Supervised 40 PhD students, published 164 peer reviewed journal papers, 110 papers in conference proceedings, 14 book chapters and 8 books.

#### **INTERVIEW**

#### PROF. BIDYADHAR SUBUDHI



Director NIT Warangal and Chief Patron NITWAA

Prof. Bidyadhar Subudhi took charge as Director NITW on 27th April 2023. In spite of his busy schedule, our beloved Director was kind enough to spare valuable time to respond to our interview by email.

#### Q1. What are your ideas to develop NIT Warangal?

Two aspects to be looked at on priority basis.

- a. Enhancing R&D Activities to achieve more publication count, International Research Grants/Collaboration, Translation Research, More PhD, Patents
- b. Public Perception: Clean Campus, Excellent Work Culture, Transparent Governance through Automation

#### Q2. How do you see higher education and engineering education, in particular, in the years to come?

Will follow NEP initiatives of GoI

- a. Student Centric Education
- b. Multidisciplinary Approach in Teaching Learning + R&D
- c. Curriculum with emphasis on Technology Innovation, Incubation and Start-up,

#### Q3. Any ideas / initiatives that you would like to adopt from other institutes you worked and implement here?

I have worked at two reputed Institutes, namely NIT Rourkela and IIT Goa. These institutes have excellent academic excellence and R&D initiatives. The campus of NIT Rourkela is extremely clean. To keep it clean all the stakeholders (Faculty, Staff and Students) extend excellent cooperation. I urge NITW fraternity to adopt all the aforesaid good practices with more inclusion of new initiatives to make NITW one of the best institutes not only in the country but beyond.

#### **INTERVIEW**

#### Q4. What are your thoughts on improving NITW ranking from 21 in NIRF?

NIRF, QS and THE Ranks
Per faculty Research outcome to be enhanced
Merit based Selection of Faculty
Improving public perception
R&D Activities Enhancement

#### Q5. What are the challenges / opportunities for NIT Warangal?

Campus Cleanness (Employee-both Faculty and Nonfaculty) Residence in campus Sufficient Student Hostel.

#### Q6. What is your message to the alumni, and what role do you see for alumni in the development of the Institute?

Alumni are important stakeholders. Their support is needed for their alma mater progress and growth. In particular, I seek their support towards mentoring students and faculty and extend cooperation for infrastructure development.

#### **ACKNOWLEDGEMENTS**

#### **NITWAA Global EC**

Outgoing Team (2020 - 2022)



Shri Alapati Prasad President BT/CE/78 Proprietor, Bhargava Solar Engineers Vijayawada



Shri Biju Philipose
Vice President
BT/EE/93
Managing Director,
Sepack India Pvt. Ltd. Kochi



Shri Gunji Murali Krishna Secretary BT/CE/94 Managing Director, Sri Raksha Constructions, Hyderabad



Prof. Kola Anand Kishore
Joint Secretary
PHD/CHE/14
Professor, Department of
Chemical Engineering,
NIT Warangal



Prof. GVS Nageswara Rao
Treasurer
BT/MET/88
MT/MET/92
PHD/MET/ 01
Professor (HAG), Department of
Metallurgical and Materials
Engineering, NIT Warangal

#### WELCOME

#### Incoming Team (2022 - 2024) Welcome!!



Shri Mamidi Radhey Shyam President BT/ME/86 Director, Natsoft Cooperation, India



Ms. Aditi Bhattacharya Vice President BT/ECE/94 Vice President, Reliance Jio, Navi Mumbai



Shri Ashwini Kumar Tambi Secretary BT/EE/97 Founder Director, Mentoras Global Initiatives Pvt. Ltd. Brand Name: CareerACER Bangalore



Dr. P. Onkara Perumal Joint Secretary PHD/BIOT/17 Associate Professor Department of Biotechnology, NIT Warangal



Dr. V. Ramsagar
Treasurer
MT/CHE/09
Associate Professor, Department
of Chemical Engineering,
NIT Warangal

#### **ACKNOWLEDGEMENTS**



**Prof. NV Ramana Rao**Former Director NITW

Prof. NV Ramana Rao served as Director NIT Warangal during the period 23rd October 2017 to 26th April to 2023. Subsequently, he has been appointed as Director NIT Raipur. Being Director, he was Chief Patron NITWAA.

On behalf of NITWAA, and Newsletter and Magazine Committee, his support and encouragement is gratefully acknowledged. Best wishes to him in future endeavors.

#### RETIREMENT



Prof .N. Subramanyam has the unique distinction of studying for 4 degrees at NIT Warangal, a B. Tech in EE, two M.Tech degrees, one in EE and CSE, and a PhD in Electrical Engineering. Prof.N. Subramanyam guided 3 Ph.Ds., published more than 15 papers, and contributed 3 book chapters. He started his career as a teaching assistant in 1981 and worked his way up the food chain, becoming a professor in 2012. He has put in more than four decades of teaching at the institute.

Prof.N. Subramanyam

He was the Department Coordinator for TEQIP and was instrumental in procuring several pieces of equipment and software worth about Rs. 1 crore in one year. Prof. N.Subramanyam served the institute in various capacities as a warden, a nodal officer in-charge of a rooftop solar power project, Dean (International Relations and Alumni Affairs), etc. He retired from the institute on 31.12.2022.



Prof. D.M. Vinod Kumar started his teaching career in Electrical Engineering Department in 1981. 1996 he earned his Doctor of Philosophy (PhD) from IIT Kanpur. He obtained Post-Doctoral Fellowship in 2002-03 from Howard University. Prof. Vinod Kumar has successfully discharged the administrative responsibilities inside and outside the institute.

Prof. D.M. Vinod Kumar

At the institute, he was Dean of Academics, Head of the Department of Electrical Engineering, Section Head of Power Systems Engineering, Professor-in-charge of IT Services Group, Chairman of the Library Advisory Committee, Deputy Chief Warden, and Chairman of Doctoral Scrutiny Committees in the Electrical Engineering Department. Prof. Vinod Kumar executed four projects and published 14 papers in IEEE/IET Transactions, 58 in high-impact refereed journals, 25 in International Conferences, and 31 in National Conferences. He guided 12 PhDs (10 as Sole Supervisor and 2 as Co-Supervisor) and numerous postgraduates and undergraduates. He thus completed 41 years of his tenure in our Institute NIT Warangal. Prof. Kumar retired from Institute on 31.1.23.

#### RETIREMENT



Prof. C. B. K. Rao

Prof. C. B. K. Rao graduated from Jawaharlal Nehru Technological University, Kakinada. He obtained his M.Tech and PhD from REC (NIT), Warangal, 1990. Prof. CBK actively built the Ultra Mega hostel, Chemical-Biotech Building, CAM and CAI buildings, Shastri Innovation and Incubation Centre. Prof CBK Rao, as he is fondly known, has been civil to everyone, and thus he is easily one of the best Civil engineers at NITW. He served as Head of Civil Engineering, Dean (Faculty Affairs), and Dean (P and D) at various times. He was instrumental in setting up new labs, purchasing sophisticated equipment and encouraging research in advanced areas of Civil Engineering. Prof. C.B. Kameswara Rao retired from institute on 31.3.23.



Prof. Shobha

Prof. Shobha is retired pn 30.11.22 after serving NITW with fervent dedication for nearly 3 decades. As a teacher, researcher and mentor Prof Shobha has done a commendable job keeping the flag of the physics dept flying high.



Prof. Laxma Reddy

Prof. Laxma Reddy joined NIT Warangal nearly four decades ago. He took the PhD in 1984 from Kakatiya Universit y and thus began a scintillating career to last 36 long and memorable years for him and his students. Prof Laxma Reddy showed his passion for research by publishing 100 plus papers in reputed indexed journals, a remarkable achievement. He guided 8 doctoral theses in the latest areas in chemistry while also guiding 82 PG dissertations. He also bagged eight research projects that he completed with panache.

Prof. Laxma Reddy proved a very able researcher and teacher, equally adept at carrying out administrative responsibilities that came his way: He was Registrar In-charge for a year, Dean (R &C), and Head of two departments of chemistry and biotechnology and Chief Warden. He was very actively involved with Jana Vignana Vedika to popularize science. Prof. Laxma Reddy retired from service on 28.2.23.

# CHAPTER NEWS

Warangal Chapter

#### Lecture





Warangal Chapter organized a lecture by our Distinguished Alumnus Shri Krishna Prasad, IPS (BT/ME/83) on 27.1.23 as a part of Lecture Series.

#### **Study Material**



Warangal Chapter distributed All in One study material to Total 200 students of 10 High Schools in 2 mandals in Jangaon & Hanamakonda Districts.

#### Calendar Release



The beautifully designed Warangal Chapter calendar (all credit to Chapter President Shri Chandragiri Srinivas) was released on 27.1.2023 at NIT Warangal.

#### **Material Distribution**



Donation of "All in One Study Material to 10th Class Students" by NITWAA Warangal Chapter on 17-2-2023 in Government Junior College Dharmasagar Mandal.

#### **Felicitation to Social Inventor**



Warangal Chapter felicitated Padma Shri awardee Shri Chintakindi Mallesham, Social Inventor, Laxmi Asu Handloom machine on 18.2.23.

#### **World Heritage day**



Warangal Chapter installed a stall at Ramappa on 18 April 2023 on the occasion of World Heritage Day celebrations.

#### Farewell Dinner



Warangal Chapter organized a farewell dinner to Prof. N. V. Ramana Rao on 26.4.2023.



#### Founder's Day



Hyderabad chapter organized Founder's day celebrations on 14.5.2023.

#### New Year Day on 22 Jan 2023



#### **Pharma Patshasal**



Program on quality concepts and human errors in work place was conducted at Pharma pathasala in association with QCFI, Hyderabad chapter, for the benefit of Pharma industry. Sri A V Seshagiri Rao and Sri Gurram Srinivasa Reddy gave the presentation on the topics.



Calendar Release of Hyderabad Chapter

#### **KERALA CHAPTER**

#### Kerala Meeting



Kerala chapter meeting on 30.4.2023 at the residence of Shri PI Chacko, Kochi.



Kerala chapter meeting on 28.5.2023 at the residence of Shri PI Chacko, Kochi.

# MIDDLE EAST\* \* CHAPTER

Professional webinar series is an initiative started by Middle East chapter. A
webinar on Startups (Investor & Founder Perspectives) by Dr. V.A.Sastry,
(BE/EE/64, Distinguished Alumnus Awardee, Alumnus Lifetime Achievement
Awardee) Ex-Infosys Board and Ms. Purvi Munot, (Co-founder & CEO,
www.sav.money) was organized on 27th May 2023.



# NITW Americas alumni chapter 2023-24

Position*:	Name	Degree from NITW	Class	City, State	Region
President	Balaraj Pudota	B.Tech (EE)	1993	Houston, TX.	
Vice President	Jags Porandla	M Tech (Water Resources)	1993	Dallas, TX	
Secretary	Sarath Tamarana	Civil Engineering	2012	Morrisville, NC	
Joint Secretary	Surya Challa	B.Tech, ECE	1996	Boca Raton, FL	
Treasurer	T.SRINIVASA REDDY	BE	1974	Mountain view ,CA	
Web portal coordinator	Harshavardhan Ganipineni	Civil Engineering	2001	Indianapolis, IN	
Executive Committee member	Srinivas V Atluri	B.Tech	1983	Cupertino, CA	
Executive Committee member	Sridhar Kunisetty	B.Tech Computer Science	1989	Fremont, CA	
Executive Committee member	Muppalla Sridhar	B. Tech Computer Science	1993	Cupertino, CA	
Executive Committee member	Ragutam Bommareddy	Mechanical Engineering	1993	San Jose, CA	
Executive Committee member	Ram Gangaraju	M Sc Tech Electronics	1993	Atlanta, GA	
Executive Committee member	Kartik Mekala	Electronics and communications	2015	Elkhart, Indiana	
Executive Committee member	Anirudh Kolla	Chemical Engineering	2018	Austin, TX	
Regional Chapter leader	Ram Gangaraju	M. Sc (Tech) Electronics	1993	Atlanta, GA	Atlanta
Regional Chapter leader	Rohan Vardhan	B.Tech in ECE	2016	Seattle, WA	Seattle
Regional Chapter leader	Ratikant Santpure	B.Tech (ECE)	1993	Pittsburgh, PA	Pittsburgh
Regional Chapter leader	Bhuvaneshwar Pasham	B.Tech fdh Met	2001	Dallas TX	Dallas
Regional Chapter leader Support	Venkateswara Pasumarthi	M.Sc. Tech	1995	Frisco, TX	Dallas
Regional Chapter leader	Rajesh Chandra	B.Tech	2004	Fremont, CA	The Bay Area





Dallas chapter has donated Solar water heating system worth Rs. 4 lakhs to Ladies Hostel.



## BANGALORE CHAPTER

#### Karnataka Meet



Second Sunday Breakfast Meet of Karnataka Chapter (Bangalore) was held on 11.6.23.



## INCULCATING DESIGN THINKING AND PRODUCT BUILDING AMONG THE STUDENTS OF NITW: EFFORTS, EXPERIENCE, AND POSSIBILITIES



Prof. Hari Kumar Voruganti,
Department of Mechanical Engineering,
NIT Warangal.

Email: harikumar@nitw.ac.in Phone +91 89 85929103

Engineers with clarity and training who can build products for societal needs are key to a nation for self-sustenance and prosperity. An initiative has been taken at NIT Warangal to motivate, nurture and train the students in Design Thinking for innovative product design and development. Unlike, at other academic institutions across India and the world, at NIT Warangal, two courses called Design Thinking and Design Studio have been introduced in the very first year for students in the Mechanical Engineering Department from the academic year 2021-22. The broad vision of these courses is to contribute towards nurturing graduates who can innovate, design, and build products for societal needs.

Design thinking is a non-linear, iterative process that teams use to understand users, defineproblems and create innovative solutions to prototype and test. Involving five phases—Empathize, Define, Ideate, Prototype, and Test as shown in Figure 1. [1]

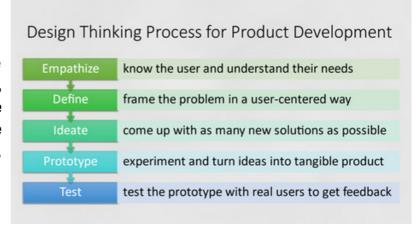


Figure 1: Five Stages of Design Thinking

In this spirit, a team of faculty executed the course in the academic years 2021-22 and 2022-23 with the following objectives.

- 1. Instil enthusiasm in the engineering approach, for students, to solve real-life problems.
- 2. Enable students to experience the joy of learning, beyond exams and placements.
- 3. Enable students to develop a deeper appreciation for the core courses.
- 4. Provide opportunities for students to inculcate proactiveness and self-learning.
- 5. Encourage students to feel responsible as engineers, in adding value to life.

The faculty team worked extensively on self-preparation involving brainstorming, taking advice from mentors, reading books [2] and detailed session-wise planning, etc. before course delivery.

Course Outcome of Design Thinking offered in I Semester of I B.Tech (Mechanical) are (see [3] for the complete document of syllabus):

- CO1 Identify user needs.
- CO2 Define problems to stimulate ideation.
- ●CO3 Ideate on problems to propose solutions by working collaboratively.
- CO4 Test aspects of proposed solutions
- CO5 Improve solutions by gaining user feedback.

The course carries 3 credits. It has only briefing sessions. There are no lectures as in the traditional sense. Every week, a total of five contact hours are allotted. This is followed by a manufacturing-oriented course/lab called the Design Studio, in the second semester.

Course Outcomes of the Design Studio course (1.5 Credits, no lectures, three hours of activities per week) are:

- CO1 Express Product Design Ideas using 2D or 3D sketches.
- CO2 Model the components with geometric specifications and appropriate materials
- CO3 Develop a prototype of the product.
- CO4 Evaluate the entire product.

Some of the execution details of the courses on Design Thinking and Design Studio are as follows:

- Students are grouped into a team of four or five.
- Inputs are given through Lectures, Discussions, in-class activities, presentations, guest talks, and skill sessions (blender software, sketching, power tools training, etc.
- Assessment: No Written Exams. Assessment only through Assignments, Presentations, Reports, and Product Demo, short videos of the Product Development journey.
- Guidelines for selection of product/project: The product to be built must be: Simple, Relatable, must have a few parts only, low budget. This ensures that the first-year students can accomplish the product building successfully and at the same time experience the process.
- Team remains the same for two semesters:
  - Design Thinking (I Sem) conceptualize and design the product.
  - Design Studio (II Sem) build and test the prototype.
- End of the year: Prototype of the Product in hand!
- In AY 2021-22, all 28 teams have built products successfully.

Following is the list of products built by the 2021 batch of students.



#### **Coconut De-husker**



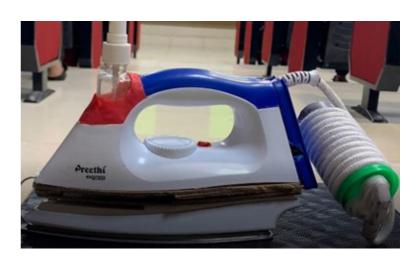
**Breathable Face Mask** 



**Improvised Mini-Drafter** 



Light to Heavy Convertible Iron Box



Phone Stand



www.nitwaa.in 25

 The current batch of 2022 admitted students are in the final phase of building the following products.





The feedback from the students has been on the following lines in the words of the students.

- "This course helped me to overcome stage fear and I can present my ideas freely."
- "It helped me to feel and know what it takes to build a product."
- "Through empathy exercise, I understood what difficulties users of a product face."
- "This course helped me to develop friendships and taught me how to work as a part of the team."
- "It generated interest in the core courses and I am looking forward to the same."
- "Entire experience of running around, working hard, and building our product is exhilarating."

From the pedagogical perspective, this course addresses the affective domain which most courses of a typical engineering curriculum do not as they address cognitive and psychomotor domains. These courses help students by providing opportunities for them, to empathize with the needs of the people around them, introspect on how to help them, understand their role in the community, and also to develop good interpersonal interactions by working together towards a common goal.

To make it possible to implement these courses for all students in their discipline, an institutional-level facility called, Design Thinking and Tinkering Lab (Maker's space) is proposed to be established with the seed money of a generous donation from an alumnus of NITW. The process of building a team and creating such a maker's space has begun in April 2023. Interested alumni, corporates, and academicians can support the initiative in many ways like mentoring, advising, CSR funds, etc. The interested may reach us at pc\_dttl@nitw.ac.in.

Further, the development of an ecosystem of innovation and entrepreneurship to support and facilitate entrepreneurship by students is a natural step that will help NITW contribute towards new start-ups. To this end, a minor degree program in Innovation and Entrepreneurship, a start-up Policy, a semester break or leave for students to work on a start-up, etc will help. The alumni can play an important role in this endeavour by sharing their knowledge and resources for the betterment of their alma mater.

#### **References:**

- 1. Norman, Don. The design of everyday things: Revised and expanded edition. Basic books, 2013.
- 2. Ulrich, Karl T., Steven D. Eppinger, and Maria C. Yang. Product design and development. Vol. 4. Boston: McGraw-Hill higher education, 2008.
- 3. Scheme of Instructions and Syllabus of B.Tech (Mechanical Engineering), NIT Warangal, 2021. (https://oldweb.nitw.ac.in/media/uploads/2021/10/23/03\_btech-in-mechanical-engineering.pdf)

www.nitwaa.in 26

# - ARTICLE -

#### ROAD SAFETY :EVEROBODY'S BUISNESS



Dr. Ravi Shankar K.V.R.
Associate Professor, Transportation Division,
Department of Civil Engineering
and Coordinator, Road Safety Forum

Road safety is one of the major challenges the world is facing, and road traffic injuries cause considerable economic losses to individuals, their families, and to nations. Road traffic crashes cost most countries 3% of their gross domestic product (GDP). Road traffic injuries are the leading cause of death for children and young adults aged 5-29 years. Every day in India, 819 lives are lost, 8,190 people get hurt with serious injuries, and 13,923 people get other injuries inroad crashes.

In September 2020, the UN General Assembly adopted a resolution of "Improving global road safety", proclaiming the Decade of Action for Road Safety 2021-2030, with the ambitious target of preventing at least 50% of road traffic deaths and injuries by 2030. It outlines the "what to do, how to do it and who to do it" to achieve the 12 Global Road Safety Performance Targets, calling on governments and partners to implement the Safe Systems Approach in the creation and implementation of strategies and programmes for road safety, sustainable mobility and urban design.

Roads should be designed keeping in mind the safety of all road users. This would mean making sure that there are adequate facilities for pedestrians, cyclists, and motorcyclists. Measures such as footpaths, cycling lanes, safe crossing points, and other traffic calming measures can be critical to reducing the risk of injury among these road users. Effective interventions include designing safer infrastructure and incorporating road safety features into land-use and transport planning, improving the safety features of vehicles; enhancing post-crash care for victims of road traffic crashes; setting and enforcing laws relating to key risks, and raising public awareness.

An increase in average speed is directly related to the likelihood of a crash occurring and to the severity of the consequences of the crash. Drivers using mobile phones are approximately 4 times more likely to be involved in a crash than drivers not using a mobile phone. Using a phone while driving slows reaction times (notably braking reaction time) and makes it difficult to keep in the correct lane and to keep the correct following distances. Hands-free phones are not much safer than hand-held phone sets, and texting considerably increases the risk of a crash.

Recently, the post-crash response and safe system approach gained attention, and some Indian states have implemented a rigorous road safety audit and iRAP (International Road Assessment Programme) star rating system. However, the onus lies on the end road user to understand the implications, obey traffic enforcement laws and respect fellow road users. In short, the road user needs to imbibe a culture of avoiding overspeeding and giving way to others. The combined efforts of the user agencies, designers, law enforcement and the end road user will result in safer travel and realising the targets of the UN decade of action for road safety.

# EC MEETING

NIT Warangal Alumni Association (NITWAA) conducted its first Executive Committee meeting of the current financial year on May 16th, 2023. The meeting was virtually held on NITWAA's Zoom account and saw robust attendance with more than 50 EC members joining in at the appointed time of 7 pm. The event was significant as it was the first EC meeting convened by the newly elected Global Executive body led by President Sh. Radheyshyam Mamidi, Vice President, Smt. Aditi Bhattacharya and General Secretary Sh. Ashwini Tambi.

The meeting started with a welcome address by Sh. Ashwini Thambi to all participants and to newly appointed NITW Director, Prof. Bidyadhar Subudhi. Prof. Subudhi reached out to NITWAA through his message of connecting alumni and students via research and industrial initiatives. This was followed by an introduction to the new NITWAA alumni connect web / mobile app by Dean IRAA, Prof. D Ramaseshu.

Next, the current state of NITWAA's finances were shared by Treasurer, Dr. V. Ramsagar. These included statements of receipts, expenditures and balances for all NITWAA accounts for FY 2022-23 and available budget for the current FY 2023-24. President Radheyshyam Mamidi took over from here and presented NITWAA's Proposed Budget for FY 2023-24. Primary elements of the budget included regular administrative expenses for running NITWAA, funding for active chapters with audited banks statements, funding for alumni welfare activities etc. Mr. Mamidi proposed that alumni funds lying dormant in NITW accounts be utilized for events such as Technozion, Spring Spree, batch reunions, Best Faculty Awards etc.

There was an extended debate around the handover of GTDTC to NITW authorities. Majority of EC members expressed their reluctance towards the handover. A core workgroup is proposed to be formed of NITWAA EC members and NITW authorities to restore GTDTC to profitability. EC proposed fund-raising from chapters needed to carry out extensive repair and restoration work on GTDTC.

The EC also discussed the newly established NITW Endowment Fund and its governance. It was agreed that flow of alumni funds would be from NITWAA accounts to the Endowment Fund with EC approvals in place.

The Executive Committee deliberated on and approved/ratified multiple items, most important among them being:

- 1. NITWAA Budget for FY 2023-2024
- 2. Endorsement of Appointments: Dr V Ramsagar (Treasurer) and Dr P Onkara Perumal (Joint Secretary)
- 3. Formal Adoption of Workgroups : Bylaws, Welfare and Benevolence, Newsletter, Cultural, Brand Enhancement
- 4. Focus Areas for New Workgroups: Student Connect, Corporate Connect, Alumni Connect, Fund Raising, NITWAA App Launch, GTDTC
- 5. Expenditure for 8 Solar Heaters for Ladies Hostel
- 6. Implementation of Tally Finance for NITWAA
- 7. Disbursement of previously approved funds for welfare and administrative purposes

The EC meeting continued for well over 3 hours and saw diverse attendees from domestic as well as global chapters. It witnessed enthusiastic discussions and voting on agenda items. The takeaway was that NITWAA is a thriving community where we all have one common goal - to uplift the honour and prestige of our alma mater, NIT Warangal!

#### CONGRATULATIONS



Prof. Bidyadhar Subudhi, Director,
NIT Warangal is nominated as Panel Member of ARMREB of DRDO.



Prof. CSRK Prasad (BT/CE/85, MT/CE/88, PHD/CE/97)
Professor of Civil Engineering has been nominated as
Executive Advisor to Director and
Registrar In-charge

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# Success!

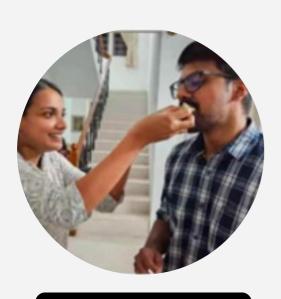
#### **UPSC RANKS 2022**



Sri Sai Krishna Avula

BT/BIOT/14

**AIR: 94** 



**Sri Achyut Ashok** 

MT/CSE/18

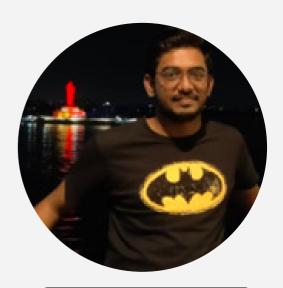
**AIR:-190** 



Ms. Sushmitha Eppalapally

BT/EE/16

**AIR:-384** 



Sri Sai Krishna Thummala

BT/CE/20

**AIR:-640** 

#### 3 FROM FAMILY



Prof. NV Umamahesh
(PhD/CE/95)
Department of Civil Engineering
Dean (Academic) NITW



Shri Ramesh Rachapudi
(BT/CHE/87)
Head, Capability Building and Knowledge
Management,
Dr Reddys Laboratories, Hyderabad
Brother-in-law of Prof. Umamahesh



Shri Sastry Kuchimanchi BT/ECE/94, Senior Director, Customer Experience Cisco, North Carolina, USA. Cousin of Prof. Umamahesh



# SUCCESS STORY



Dr. Anand Swaminathan obtained his B. Tech (Mechanical) with distinction from the National Institute of Technology, Warangal in 1982. Dr. Anand continued his education at the Indian Institute of Management, Calcutta where he acquired a PGDM (equivalent to an MBA) degree with a concentration in Marketing and Organizational Behaviour. At IIM-Calcutta, he was the recipient of the Duncan Scholarship for academic excellence in the behavioural sciences.

Dr. Anand Swaminathan BT/ME/82

Dr. Anand worked for two years in the Corporate Marketing & New Business Group at Indian Oxygen Limited in Kolkata. He was responsible for market research while employed at Indian Oxygen Limited. New products introduced as a result of his market research led to substantial revenue growth at IOL. He joined the PhD program in Business Administration at the University of California, Berkeley in 1986 and has forged a successful career in academic research and teaching. Dr.Swaminathan's career spans faculty positions in business schools at the University of Michigan (July 1991 to June 1997), University of California at Davis (July 1997 to June 2007) and Emory University (July 2007 onwards) where he is currently employed as the Goizueta Professor of Organization & Management. At Emory University's Goizueta Business School, Dr.Swaminathan served as the Head of the Organization & Management area from 2010 to 2013 and Associate Dean of the PhD Program from 2011 to 2017. In recognition of his service contributions, he received the Donald R. Keough Award for Excellence from the Goizueta Business School in 2018.

Dr. Swaminathan studies the effects of the competitive and institutional environment, and network structure on a variety of outcomes including market entry and exit, organizational change, and the diffusion of organizational practices and institutional rules. His research has been published in over 50 journal articles and book chapters that have received almost 9.000 citations. His current research examines planned obsolescence in software platforms, cross-national differences in the timing of product recalls in the automobile industry, transition to self-employment, management response to online service reviews, membership retention in online communities, network effects in venture capital investment decisions, and career mobility among coaches in the NFL. He is a member of the Academy of International Business, Academy of Management, American Sociological Association, INFORMS (The Institute for Operations Research and the Management Sciences) and the Strategic Management Society. He has served as an Associate Editor of the Academy of Management Review and the Journal of International Business Studies in the past and is currently a member of the Editorial Boards of the Strategic Management Journal and the Journal of Management Scientific Reports.

In recognition of his professional excellence, National Institute of Technology, Warangal presented him the Distinguished Alumnus Award for Professional Excellence 2021.



## SUCCESS STORY



Shri T Krishna Prasad, IPS BT/ME/83

Shri T Krishna Prasad, IPS graduated from NIT Warangal in 1983 with Mechanical Engineering stream. He went on to do masters in MBA from IIM Ahmedabad in 1985. In 1986, he was selected into Indian Police Service. While in service, he also obtained LLB from Osmania University in 2016 and is currently pursuing PhD in Sustainable Urban Mobility

He served the country in various capacities such as District SP for Nellore, Vizag, Guntur and Medak districts and DIG for Warangal and Visakhapatnam ranges, Commissioner of Police of Vijayawada city. He is responsible for the computerization of Police in AP and CCTNS project for the country, way back in 2012. He authored the National Road Safety Authority and submitted to Government of India. He retired from the office and as DGP and Chairman Road Safety Authority in March 2020, after serving the nation for 34 years.

He had earned an echoing reputation for going beyond the Call of the Duty by going an extra and less travelled mile. While working in Naxal areas, he effected surrender of 511 naxals and is popularly called as Surrender Specialist.

Shri T Krishna Prasad IPS is decorated with Indian Police Medal, President Police Medal and Antra Suraksha Seva Padak. (Internal security Medal).

As ED APIIC, (1999-2004) he played stellar role in development of several infrastructure projects, in PPP mode, such as HITEC CITY, Shamshabad International airport, Hyderabad Metro, Financial District, Gangavaram Port and 12 other projects. He is also involved in policy making and drafting of AP Industrial Policy 2000, AP IT Policy 2000, (national) SEZ Bill 2002, AP Infra Enabling Act 2002 etc.

As CMD LIDCAP, in 2002, he implemented a unique Poverty Eradication program - Malupu. Under Malupu, he provided Up-skilling to 162,000 Below the Poverty Line leather artisans and he acquired 5000 acres of land and developed of Leather Industrial Clusters. Malupu is now a massive and popular Economic Empowerment Movement involving several thousands of youth from marginalised sections.

Shri T Krishna Prasad played an important role in drafting and passing of Right to Education Act 2009 (RTE).in 2006, he authored a book - "Trafficking in Persons- Tip of the Iceberg" which was published by UN. His research has led to a conclusion that children outside schooling system are vulnerable to trafficking and has therefore strongly recommended the introduction of RTE Act, which was eventually passed in 2009.

His perineal "Beyond the Call of Duty" attitude made him to adopt Yerravalli village near Hyderabad. He donated 42 cycles to girl children, and 100 desks, sponsored skill development programs and encouraged youth to set up Nano enterprises. His advocacy that "Teach a Man to catch Fish" led to institution of an NGO - KP Foundation.

Shri T Krishna Prasad keeps himself occupied with scaling up of village adoptions to 117 aspirational districts to present Role Model Villages in India while focusing on School education, Skill development, Livelihood and Health through www.kp.foundation.

In recognition of his professional excellence, National Institute of Technology, Warangal presented him the Distinguished Alumnus Award for Professional Excellence 2020.

# First lady faculty member in the Mechanical Engineering Department



Dr. Srinagalakshmi Nammi
MT/ME/10
Assistant Professor
Department of Mechanical Engineering
NITW



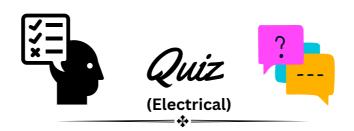
Springspree 2023, the annual student cultural festival of the National Institute of Technology (NIT), Warangal, was organized from April 7 to 9, 2023. The Film star and politician Shri Pawan Kalyan was the chief guest for the inaugural programme on the evening of April 6. The theme for the event was "Kaladhvani". Shri Pawan Kalyan, speaking at the Springspree-2023, said never to run away from a conflict; he told the students to rise like a phoenix from the challenges posed by life. At the start of his speech, Pawan invoked Rani Rudrama Devi, Bammera Pothana, Dasaradhi Krishnamacharyulu and Kaloji, and said that he was happy to step on the land of these greats lived. NITW Director Prof. N.V. Ramana Rao, Prof. Puli Ravi Kumar, DeanSW and Prof. M. Heeralal, Faculty Advisor, Spring Spree 2023, were among other dignitaries present.

Shri Venu Udugula, who directed the Virataparvam movie was the one more film personality who came to NITW. He spoke about filmmaking, and interacted with the students.

Another guest, Psychologist Visesh, spoke on "Hope for Tomorrow – Navigating Life's Challenges and finding strength within" at Ambedkar Learning Centre. He said coping with stress, building resilience, conquering challenges, and mastering well-being. NIT Warangal Alumni Chapter supported this event. Mr. Tharun Bhascker Dhaassyam, who directed popular movies like "Pellichupulu" and "Ee Nagaraniki Emaindi" interacted with students. He spoke on several aspects like movies, college life and his friends.



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Shri S Bhujanga Reddy, BT/EE/99, Sub-Divisional Engineer, BSNL, Vijayawada Shri Abhiram Attada, BT/EE/00, Sr Program Manager, Micron Technologies, Hyderabad Shri Janardhana K, BT/EE/00, Engineering Manange, Ivy, Hyderabad

- 1) The supply for Railway traction system
- 2) What are universal gates -
- 3) The Parallel operated generator which neither supplying nor taking load is called
- 4) Humming of transformers is due to
- 5) The Minimum no of slip rings required for 3phase squirrel case motor
- 6) The Metal which does not obey the ohm's law -
- 7) The Power factor angle of DC circuit -
- 8) Which is analogous to mass in electrical circuits -
- 9) What is the phenomenon "Lightly loaded transmission lines receiving end voltage is more than sending end voltage –
- 10) Corona effect and skin effect in transmission lines can be reduced with
- 11. The law for most economical size of the conductor for remission lines decided by
- 12. Damping of an instrument should be adjusted to a value which is sufficient to enable the pointer to rise quickly to its deflected position without overshooting is called as -
- 13. What is the Phenomena in squirrel cage rotor to run at speeds as low as one-seventh of their synchronous speed
- 14. The phenomenon which causes running or moving objects to appear stationary or appear to be operating slower than their actual speed,
- 15. The device which is commonly used as a time base in electronic circuits?
- 16. In digital logic circuits, the Boolean operation OR is represented by:
- 17. What is the purpose of a Schottky diode?
- 18. What is the function of a relay coil in an electromechanical relay?
- 19. What is the primary function of a Zener diode?
- 20. Which type of motor is most suitable for high-precision positioning applications?
- 21. What is the function of a relay in an electrical circuit?
- 22. Which type of electrical motor does not require brushes for operation?

(answers on next page)

#### **OBITUARY**



Sri R Murali Mohan BT/EE/72 Left us on 07-10-2022

#### Quiz Answers

1.	25KV AC 1 phase
2.	NAND & NOR gates
3.	Floating
4.	Magnetostriction
5.	Nil
6.	Tungsten
7.	Zero
8.	Inductance
9.	Ferranti effect
10.	Hallow conductors
11.	Kelvins law
12.	Dead Beat
13.	Crawling
14.	stroboscopic effect
15.	Quartz crystal oscillator
16.	+
17.	Rectification of high-frequency signals
18.	To generate an electromagnetic field
19.	Voltage regulation
20.	Stepper motor
21.	To control the flow of current
22.	Synchronous motor



### <u> POEM !!!</u>



Srinivas V Alturi BT/ECE/83 Lead Performance Engineer, SAP SuccessFactors, USA

#### Learn On the Go

A brief vacation from work life, especially a long-distance vacation, Lets you break with the routine, and watch the life on the go.

From the delayed flights and unexpected delays along the way, Yes it teaches you, how to plan for the contingencies and Would make you resilient.

Meeting family and friends and go through various emotions, Yes, it brings out the multi-dimensional personality, hidden somewhere underneath to the fore and makes you versatile.

Visiting various local attractions and religious places, Yes, it connects you to the history and make you realize that You are part of chain, and it is up to you to make history if you so desire.

No doubt, you would return jet lagged and feel out of context For a few days, but lets you cope with the niggles and Eventually yank them out to lead a normal life.

Yes, you see there are benefits to go off-line, And learn on the go! Would you agree?



#### Alumni are requested to contribute generously in the development of NITW and NITWAA.

S No	Name of the account	Account Number	Remarks	Purpose of account
1	NIT Warangal Alumni Association	40042638504	Donations exempted u/s 80G	To promote cultural, recreational & social activities beneficial to the students, Alumni and to the society and for welfare of the Alumni and students
2	NITWAA Welfare Fund	40145942110	Donations exempted u/s 80G	For needy alumni on health and other genuine grounds
3	NITW Alumni Association (Centre of Excellence)	62467236626	Donations exempted u/s 80G	For GTDTC upkeep and operations

CSR Contributions are also tax exempted.

**Bank Details:** 

Name of the Bank: State Bank of India Branch: NIT Campus, Warangal Branch Code: 20149

IFSC No.: SBIN0020149
MICR Code No.: 506002030
SWIFT Code No.: SBININBBH14

For further details, please contact treasurernitwaa2020@gmail.com secretary.nitwaa@gmail.com