MAHARASHTRA INSTITUTE OF TECHNOLOGY

CHHATRAPATI SAMBHAJINAGAR

An Autonomous Institute

Department of Plastic and Polymer Engineering

MIT
Quest for Excellence

POLYVISION 2K25

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Association of Plastic and Polymer Engineering Students (APPES)

INDEX

Message from HoD's Desk

Dr. Suranjana Mandal
Associate Professor and HoD

It gives us immense pleasure to present the March-2025 issue of "POLYVISION", the e-magazine of the Department of Plastic and Polymer Engineering which is published through Association of Plastic and Polymer Engineering Students (APPES), showcasing the creativity, innovation, and activities of our students. In this dynamic era of digitization and e-learning, a digital magazine serves as a fitting platform for expressing diverse perspectives on socio-economic, political, and cultural issues.

POLYVISION continues to be a vibrant space for both students and faculty to share insights, technical knowledge, and imaginative ideas across multiple dimensions.

We are also delighted to share two significant milestones for our department. A two-year M. Tech program in Polymer Science and Technology has been introduced in 2024-25 academic session, marking an important expansion in our academic offerings. Additionally, our application for NBA accreditation for the year 2024-25 demonstrates our unwavering commitment to academic excellence and continual growth.

This edition would not have been possible without the dedication and enthusiasm of our student contributors, editorial board, and faculty members. I sincerely thank each one of them for their hard work in bringing this magazine to life.

Wishing all our students and staff continued success in their future endeavours.

Message From Editors

Pratik Ghagare – (T3712)
(TYPPE)
Editor

Soham Nile – (T2730)
(SYPPE)
Sub-editor

Welcome to the current edition of E-magazine of the Department of Plastic and Polymer Engineering, where we explore the critical intersections of academic excellence and industry advancement. As aspiring engineers and professionals in the field of plastics and polymers, one of the most important milestones in your career journey is the Graduate Aptitude Test in Engineering (GATE). This exam not only serves as a gateway to higher education but also opens doors to opportunities in prestigious companies and research institutions.

In this issue, we dedicate a section to helping you prepare for the GATE exam and other aptitude tests that are pivotal for your career progression. Our team has compiled expert insights on key preparation strategies, study materials, and practice techniques tailored to the challenges specific to the Plastic and Polymer Engineering discipline. The non-technical sections show the skills of the students. Also, there is an interesting section for preparation of the aptitude test which may help you facing the interviews.

This edition of our magazine is dedicated to empowering aspiring engineers to excel in these competitive exams. From insightful articles on exam strategies to detailed guides on polymer science fundamentals, we aim to equip you with the tools needed to conquer academic and professional frontiers. Additionally, you'll find successful alumni's who share their journeys, tips from experts in the field, and resources tailored specifically for polymer enthusiasts.

In conclusion, excelling in the technical, non-technical and aptitude sections of the exams require dedication, disciplined study, and smart strategies. As you prepare for this important exam, remember that success is the result of consistent effort, focus, and a well-rounded approach. We hope this edition of the Plastic and Polymer Engineering E-Magazine serves as a helpful guide to your GATE preparation journey.

Good luck, and may your hard work pave the way for a bright future in Plastic and Polymer Engineering!

STUDENT SECTION

The Plastic Paradox:

Exploring the Benefits and Drawbacks of a Material That Changed the World

Yamin Md. Rauf Sheikh
(T3732)
(TYPPE)

The ubiquitous presence of plastic in our lives is a testament to its remarkable versatility and affordability. From the packaging that protects our food to the medical devices that save lives, plastics have revolutionized countless industries and transformed our daily routines. Yet, this seemingly indispensable material has also become a symbol of our throwaway culture, with its environmental consequences raising serious concerns about its long-term impact on our planet. This article delves into the plastic paradox, exploring both the remarkable benefits and the undeniable drawbacks of this material that has irrevocably changed the world.

A Material Revolution:

The story of plastics begins in the 19th century, with the discovery of synthetic polymers. These long-chain molecules, formed by linking together smaller repeating units, possessed unique properties that opened up a world of possibilities. Plastics could be molded, shaped, and customized into an astonishing array of forms, making them ideal for a wide range of applications. Their lightweight, durable, and waterproof nature made them perfect for packaging, construction, and countless other industries.

The advent of mass production in the 20th century further fuelled the plastic revolution. From disposable cups and plates to synthetic fibres for clothing, plastics became an integral part of modern life. Their low cost and convenience made them accessible to a global population, contributing to a rise in living standards and the spread of consumerism.

The Dark Side of Convenience:

However, the convenience of plastics comes at a significant cost. The very properties that make them so useful also contribute to their environmental burden. Plastics are remarkably resistant to degradation, meaning they can persist in the environment for hundreds, even thousands, of years. This durability, while advantageous in some applications, poses a significant threat to ecosystems.

Plastic pollution has become a global crisis, with vast quantities of plastic waste accumulating in landfills, oceans, and even our food chain. Microplastics, tiny fragments of plastic less than 5 millimetres in size, have been found in everything from the Arctic ice to our drinking water, raising concerns about their potential impact on human health.

The production of plastics also carries its own environmental footprint. The extraction and processing of fossil fuels, the primary source of raw materials for many plastics, contribute to greenhouse gas emissions and climate change. The manufacturing process itself generates significant pollution, releasing harmful chemicals into the air and water.

Seeking Solutions:

Recognizing the challenges posed by plastic waste, a global movement towards sustainable

3D Printing:

Revolutionizing the Polymer Industry

The polymer industry is undergoing a transformative shift, and 3D printing, also known as additive manufacturing, is at the forefront of this revolution. This technology, once relegated to prototyping and niche applications, is rapidly becoming a powerful tool for manufacturers, enabling them to create complex polymer parts with unprecedented precision and flexibility.

Sagar Sutar – (T3737)
(TYPPE)

Beyond Prototyping: 3D Printing's Impact on Polymer Production

The traditional approach to polymer production involves complex and expensive tooling processes, often limiting design freedom and production flexibility. 3D printing, however, offers a paradigm shift. It allows manufacturers to create custom parts directly from digital designs, eliminating the need for moulds and dies. This opens up a world of possibilities for:

- Complex Geometries: 3D printing enables the creation of intricate designs with internal channels, complex undercuts, and intricate details that would be impossible to achieve with traditional methods. This unlocks new possibilities for lightweight, high-performance polymer parts in industries like automotive, aerospace, and medical devices.
- Customization and Mass Personalization: 3D printing empowers manufacturers to create bespoke products tailored to individual needs. This opens up new avenues for personalized medical devices, customized footwear, and unique consumer goods.

- On-Demand Production: 3D printing eliminates the need for large inventory stockpiles, allowing for production on demand. This reduces waste, lowers costs, and enables faster response times to market fluctuations and customer requests.
- Material Innovation: 3D printing allows for experimentation with new and innovative polymer materials, leading to the development of lighter, stronger, and more sustainable products. This opens up a vast range of possibilities for creating advanced materials with unique properties.

Challenges and Opportunities

While 3D printing offers immense potential, challenges remain. Scaling up production to meet industrial demands, ensuring consistent part quality, and addressing concerns around material cost and sustainability are key areas that need further development.

Despite these challenges, the future of 3D printing in the polymer industry is bright. As technology continues to advance and costs decrease, 3D printing will become an increasingly integral part of polymer manufacturing, driving innovation, improving efficiency, and enabling the creation of products that were once unimaginable.

WHO SAYS NO TO PLASTIC…!

Who says no to plastic,
As it is fantastic
Less steel, glass and wood too expensive these days,
Plastic cars replace art now a days.
Still, who says no to plastic!

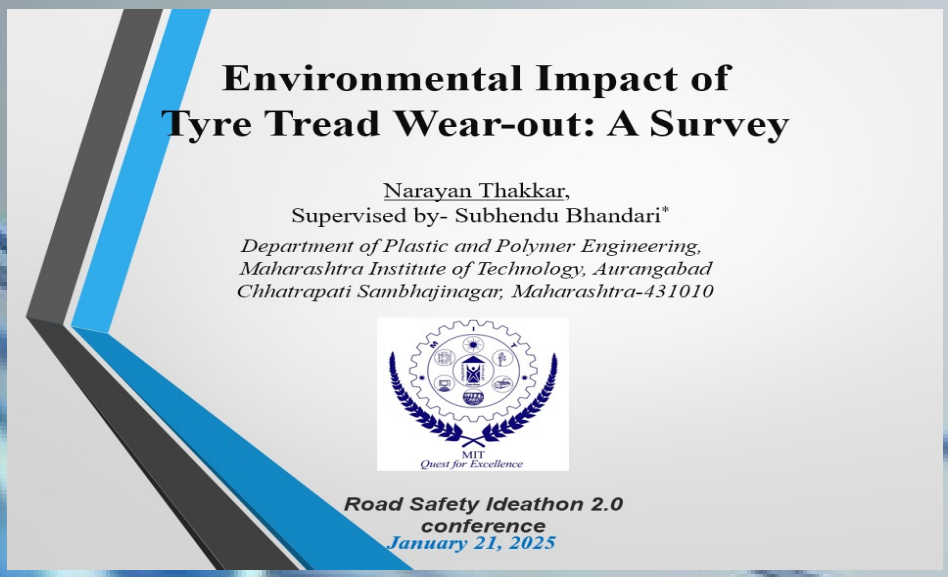
Who says no to plastic,
As it is elastic
What if the sutures, bags and tubing are of metal,
As plastic doing its job better.
Still who says no to plastic!

Who says no to plastic,
As it feels us enthusiastic…
Thousands of crores annually,
Contributes the plastic Industry.
Still who say no to plastic!

Yes they say no to plastic,
Cause the way they use is barbaric…
Follow Reduce, Reuse, Recycle
And say yes to plastic!

Rudrayani Khadse - (T3717)
(TYPPE)

Ideathon 2.0 conference participation



Narayan Thakkar - (T2734)
(SYPPE)

The presentation summarizes the environmental impact of tire production, usage, and disposal, particularly in India's rapidly growing automotive sector. It highlights how the tire industry, while essential for transportation, contributes significantly to pollution due to the resource-intensive manufacturing process and the harmful substances released throughout a tire's lifecycle. The study assesses the environmental consequences of tire repair and disposal by collecting data from tire repair shops and consumer surveys, focusing on materials used, tire lifespan, and disposal habits. Findings reveal that India uses approximately 135 million tires annually, with 90% discarded and only 10% resoled. Improper disposal leads to landfill accumulation, toxic emissions from tire fires, and contamination of soil and water due to the leaching of hazardous chemicals. The report proposes sustainable solutions, including the use of advanced materials like silica, natural rubber, and Kevlar, to improve durability and reduce environmental impact. Optimized tread designs, expanded recycling initiatives such as pyrolysis and crumb rubber production, and increased consumer awareness about responsible tire disposal are also recommended. Additionally, the study emphasizes the importance of government regulations, including stricter waste management policies and incentives for eco-friendly tire manufacturing and recycling. Industry collaboration with environmental agencies is also suggested to drive innovation in sustainable practices.

PHOTO GALLERY

Felicitation of Topper of 2023-24 Batch
by Devidasrao Ashtaputre Excellence Award

Felicitation of Students for Pursuing their Higher Studies

PHOTO GALLERY

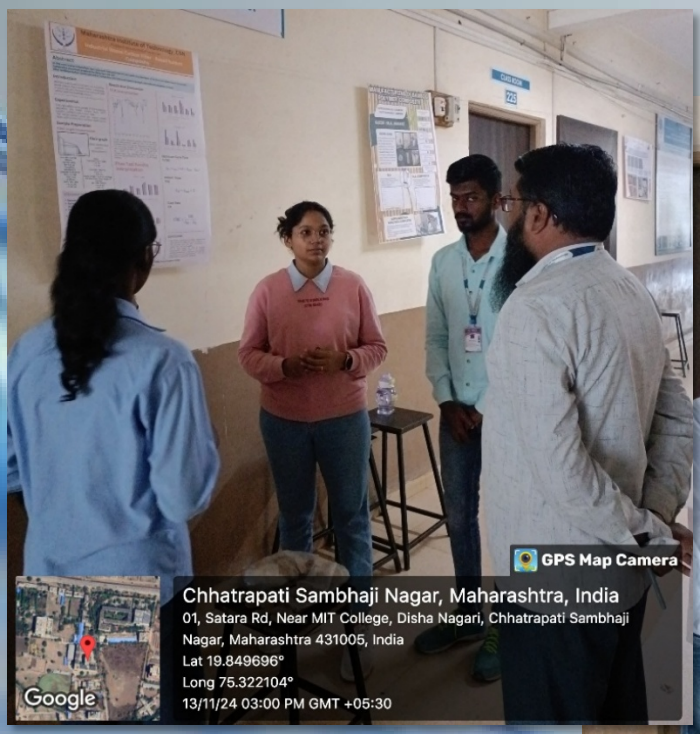
Expert talk on Innovation and Entrepreneurship

by Mr. Sandeep Deshmukh (MD, Turbo PlastiBlends)

PHOTO GALLERY

Alumni talk on career development, industry trends & leadership by Mr. Viral Vora (Arkema)

PHOTO GALLERY



Poster Presentation Competition of Final Yr. PPE by APPES

PHOTO GALLERY

Poster Presentation Competition of TYPPE by APPES

PHOTO GALLERY

Poster Presentation Competition of SYPPE

on Community Engagement Project

GATE CORNER

GATE Preparation Session

Our Recent Placement of 2023-24 Batch

Maharashtra Institute of Technology
Chhatrapati Sambhaji Nagar
(An Autonomous Institute)

Department of Plastic & Polymer Engineering

Our Major Recruiters Academic Year 2023-24

Reliance Industries Limited	Polmann India Limited
Virtual Simutech	PK Internationals
SPL Supreme Petrochem Ltd	Specialty Polymers, Inc. (Innovative • Responsive • Flexible)
Vee Kay Polymers	Sarvottam Polymers Pvt. Ltd.
Shapoorji Pallonji	

Our Placement Partners in Academic Year 2023-24

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Polymer Science and Engineering (XE-F)

Section 1: Chemistry of high polymers

Monomers, functionality, degree of polymerizations, classification of polymers, glass transition, melting transition, criteria for rubberiness, polymerization methods: addition and condensation; their kinetics, metallocene polymers and other newer methods of polymerization, copolymerization, monomer reactivity ratios and its significance, kinetics, different copolymers, random, alternating, azeotropic copolymerization, block and graft copolymers, techniques for polymerization-bulk, solution, suspension, emulsion. Concept of intermolecular order (morphology) – amorphous, crystalline, orientation states. Factor affecting crystallinity. Crystalline transition. Effect of morphology on polymer properties.

Section 2: Polymer Characterization.

Solubility and swelling, Concept of molecular weight distribution and its significance, concept of average molecular weight, determination of number average, weight average, viscosity average and Z-average molecular weights, polymer crystallinity, analysis of polymers using IR, XRD, thermal (DSC, DMTA, TGA), microscopic (optical and electronic) techniques, Molecular wt. distribution: Broad and Narrow, GPC, Mooney viscosity. Section 3: Synthesis, manufacturing and properties Commodity and general-purpose thermoplastics: PE, PP, PS, PVC, Polyesters, Acrylic, PU polymers. Engineering Plastics: Nylon, PC, PBT, PSU, PPO, ABS, Fluoropolymers Thermosetting polymers: Polyurethane, PF, MF, UF, Epoxy, Unsaturated polyester, Alkyds. Natural and synthetic rubbers: Recovery of NR hydrocarbon from latex; SBR, Nitrile, CR, CSM, EPDM, IIR, BR, Silicone, TPE, Speciality plastics: PEK, PEEK, PPS, PSU, PES etc. Biopolymers such as PLA, PHA/PHB

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Section 4: Polymer blends and composites.

Difference between blends and composites, their significance, choice of polymers for blending, blend miscibility-miscible and immiscible blends, thermodynamics, phase morphology, polymer alloys, polymer eutectics, plastic-plastic, rubber-plastic and rubber-rubber blends, FRP, particulate, long and short fibre reinforced composites. Polymer reinforcement, reinforcing fibres – natural and synthetic, base polymer for reinforcement (unsaturated polyester), ingredients / recipes for reinforced polymer composite.

Section 5: Polymer Technology.

Polymer compounding-need and significance, different compounding ingredients for rubber and plastics (Antioxidants, Light stabilizers, UV stabilizers, Lubricants, Processing aids, Impact modifiers, Flame retardant, antistatic agents. PVC stabilizers and Plasticizers) and their function, use of carbon black, polymer mixing equipment, cross-linking and vulcanization, vulcanization kinetics.

Section 6: Polymer Rheology.

Flow of Newtonian and non-Newtonian fluids, different flow equations, dependence of shear modulus on temperature, molecular/segmental deformations at different zones and transitions. Measurements of rheological parameters by capillary rotating, parallel plate, cone-plate rheometer. Visco elasticity-creep and stress relaxations, mechanical models, control of rheological characteristics through compounding, rubber curing in parallel plate viscometer, ODR and MDR

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Section 7: Polymer Processing.

Compression molding, transfer molding, injection molding, blow molding, reaction injection molding, filament winding, SMC, BMC, DMC, extrusion, pultrusion, calendaring, rotational molding, thermoforming, powder coating, rubber processing in two-roll mill, internal mixer, Twin screw extruder.

Section 8: Polymer Testing.

Mechanical-static and dynamic tensile, flexural, compressive, abrasion, endurance, fatigue, hardness, tear, resilience, impact, toughness. Conductivity thermal and electrical, dielectric constant, dissipation factor, power factor, electric resistance, surface resistivity, volume resistivity, swelling, ageing resistance, environmental stress cracking resistance, limiting oxygen index. Heat deflection temperature -Vicat softening temperature, Brittleness temperature, Glass transition temperature, Co-efficient of thermal expansion, Shrinkage, Flammability, dielectric constant, dissipation factor, power factor, Optical Properties – Refractive Index, Luminous Transmittance and Haze, Melt flow index.

Section 9: Polymer Recycling and Waste management.

Polymer waste, and its impact on environment, Sources, Identification and Separation techniques, recycling classification, recycling of thermoplastics, thermosets and rubbers, applications of recycled materials. Life cycle assessment of polymer products (case studies like PET bottles, packaging bags).

GATE QUESTIONS

Q.1) Which of the following is a discontinuous polymer processing operation?
(A) Calendaring
(B) Extrusion
(C) Film blowing
(D) Thermoforming

Q.2) The blend of polyethylene and polypropylene is
(A) Immiscible due to enthalpic constraints
(B) Immiscible due to entropic constraints
(C) Miscible as they are polyolefins
(D) Miscible due to comparable solubility parameters

Q.3) Toughness in a polymer can be inferred from
(A) Izod impact strength
(B) Depth of indentation
(C) Area under the stress-strain curve
(D) Charpy impact strength

Q.4) Which of the following polymers are polyesters?
(A) Poly(acrylic acid)
(B) Poly(lactic acid)
(C) Polyhydroxybutyrate
(D) Poly(ε-caprolactone)

Q.5) Interfacial polymerization can be used to prepare

(A) Nylon 6
(B) Nylon 66
(C) Polyacrylonitrile
(D) Poly(butyl acrylate)

Q.6) In a rubber sample with a Mooney viscosity of 60 ML(1+4) 100 °C, the number 4 signifies

(A) Applied shear rate in s-1
(B) Number of samples tested
(C) Time in minutes after starting the motor when the measurement is taken
(D) Preheating time in minutes

Q.7) The initiator system which can be used for free radical polymerization at 5 °C is

(A) $FeSO_4$ + t-butyl hydroperoxide
(B) Azobisisobutyronitrile
(C) Potassium persulfate
(D) Benzoyl peroxide

Q.8) Weather resistance of high impact polystyrene can be improved by blending polystyrene with

(A) Styrene butadiene rubber
(B) Natural rubber
(C) Ethylene propylene rubber
(D) Nitrile rubber

Q.9) The functionality of adipic acid for condensation reaction with glycerol is _____ (in integer).

Q.10) If 5 g of a monodisperse polystyrene sample of molecular weight 10,000 g mol-1 is mixed with 15 g of another monodisperse polystyrene sample of molecular weight 20,000 g mol-1, then the polydispersity of the resulting mixture is _____ (rounded off to two decimal places).

Q.11) For a polymer sample with a viscosity of 6 × 1011 poise, if the apparent plateau modulus of 3 × 106 dyne cm-2 drops to zero above a certain temperature, the relaxation time of the polymer is _____ days (rounded off to one decimal place).

Q.12) The thermal conductivity values of glass fiber and epoxy resin are 1.05 W m-1 K-1 and 0.25 W m-1 K-1, respectively. The thermal conductivity of a glass fiber reinforced epoxy composite with a fiber content of 60% by volume along the fiber direction is _____ W m-1 K-1 (rounded off to two decimal places).

Q.13) The tensile modulus of a thermosetting polyester resin and glass fiber are 3 GPa and 80 GPa, respectively. If a tensile stress of 110 MPa is applied along the fiber direction on a continuous uniaxially aligned glass fiber reinforced thermosetting polyester composite with a fiber content of 60% by volume, the resulting strain will be _____×10-3 (rounded off to one decimal place).

Q.14) The amount of low molecular weight plasticizer with a T_g of -60 °C that must be added to nylon 6 to reduce its T_g from 50 °C to 30 °C is _____ % (rounded off to nearest integer).

Q.15) The enthalpy of fusion for a polymer is found to decrease from 135.6 J g-1 to 120 J g-1 after five years of use. If the enthalpy of fusion of the same polymer with 100% crystallinity is 290 J g-1, then the loss in crystallinity after five years is _____ % (rounded off to one decimal place).

APTITUDE QUESTIONS

Q1. Nylon-6 is manufactured from

A) Caprolactam.
B) Adipic acid and hexamethylene diamine.
C) Maleic anhydride and hexamethylene diamine.
D) Sebacic acid and hexamethylene diamine.

Q2. Caprolactam, a raw material for the manufacture of nylon-6, is produced from

A) Phenol
B) Naphthalene
C) Benzene
D) Pyridine

Q3. The monomer of polyvinyl chloride (PVC) is

A) Chloroethene
B) Ethylene dichloride
C) Ethyl chloride
D) Chloroform

Q4. Buna-S is also known as

A) Teflon
B) PTFE
C) SBR
D) Polyacrylates

Q5. Neoprene is chemically known a

A) Polybutadiene
B) Styrene butadiene rubber (SBR)
C) Polyurethane
D) Poly chloroprene

Q6. Which of the following is the most important rubber compounding ingredient that is used to improve the wearing qualities of both natural rubber & and SBR by imparting toughness?

A)Phosphorous
B)Carbon black
C)Pine oil
D)Rosin

Q7. ____ is an addition polymer

A) Nylon
B) Bakelite
C) Polyethylene
D) None of these

Q8. Gutta percha rubber is

A) Soft & and tacky at room temperature
B) An isomer of natural rubber.
C) A thermosetting resin.
D) Recovered by coagulation of rubber latex.

Q9) Which number among the given option is not divisible by 3?

A) 111 B) 993 C) 125 D) 999

Q10) Calculate smallest five digit no divisible by 12, 13 &20.

A) 10247 B) 10140 C) 12361 D) None of this

Q11) What Smallest number should be added to 4456 so that the sum is completely divisible by 6?

A) 4 B) 9 C) 2 D) 1

Q12) 4760 is divisible by both 3 & 11. The non zero digits in the hundred's & ten's places are….**

A) 7 & 4 B) 7 & 5 C) 8 & 5 D) None of this.

Q13) If the number 97215*6 is completely divisible by 11, then the smallest whole number in place of * will be

A) 3 B) 2 C) 1 D) 5

Q14) Determine the Square of 96

A) 2916 B) 9216 C) 3249 D) 7569

Q15) 3249 is the square of which of the following number?

A) 53 B) 67 C) 57 D) None

Q16) Find the Square of 777

A) 321489 B) 603729 C) 598049 D) None

Q17) 105625 is the square of which of the following number?

A) 325 B) 335 C) 345 D) 355

Q18) What is the Square of 1234

A) 1048516 B) 1195756 C) 136536 D) 1522756

Q19) 49126081 is the square of which of the following number?

A) 6229 B) 7021 C) 7009 D) 7569

Q20) Determine the LCM of 32,48,64.

A) 192 B) 204 C) 146 D) 188

Q21) 510 is the LCM of which of the following number?

A) 14,21,98 B) 34,85,51 C) 7,8,14,21 D) 100,150,200

Q22) Which of the following numbers has same HCF.

A) 510,92 & 48,72 B) 75,135 & 50,70,90
C) 66,33 & 36,60 D) 336,54 & 12,18,24

Q23) What was the day on 30th September 2000

A) Saturday B) Sunday C) Monday D) Tuesday

Q24) What was the day on 5th January 1962

A) Tuesday B) Wednesday C) Thursday D) Friday

Q25) Krishna's age after 15 years will be 5 times his age 5 years back. What will be his present age?

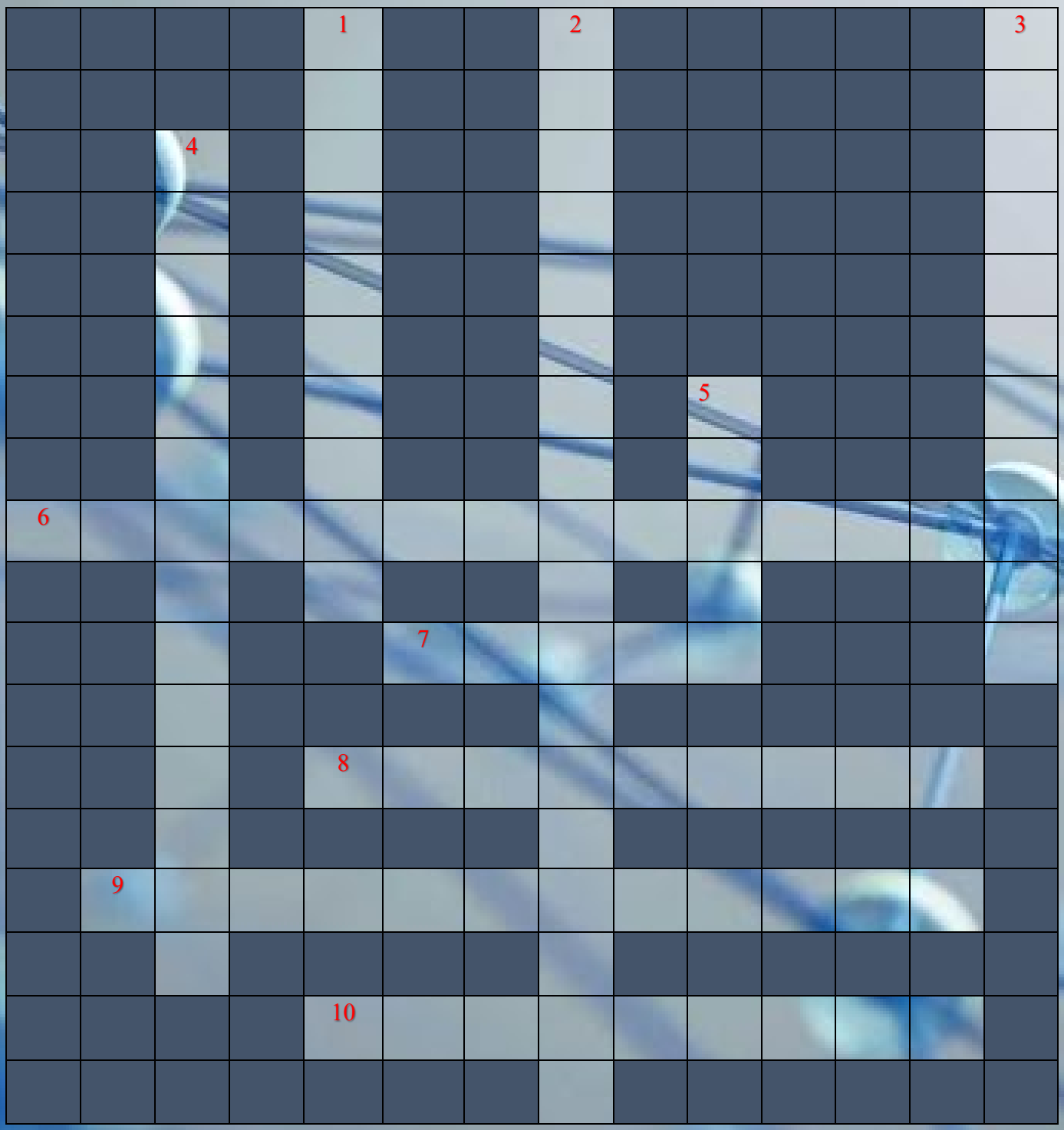
A) 35 B) 05 C) 10 D) 50

POLYMER WORD SEARCH

X E Z I E O H H K W V M R H F S U D M D J G O V
X X X T Z D P F D W K X H K X I C M A F W M K Q
T G E N E R Y T S Y L O P T C A P M I H G I H R
U C L H V J S H X E P Z L N N K B J C Y B T S B
K N H M I E Q N E Y L B G T V F D Q D O E R B G
W C I X K G D D Y D M D Q L A Y V X M O P F U T
D O R J P F H I E K L P W Y S B E T G Z C C E S
A G S N L S G D R O V A H O Y T Y V E T Y P O Z
F J H Z U F Z G E O C Z M W K N T I A P G L K Z
C F B W D D Z S W N L W X R O O H T Y J I I U A
C T E E A I B N K Q S H U J O N I G H K D L J E
N I Y E S H P T I B Z I C Z B F B F Q I L G M N
W V L G A C Q U V S W V T L W V A Z L S I W X E
S S U Y S X D W Z W E D G Y Y G E E U X P F R L
Y B S L R U C Z Y C X R A R P N K W R Z K C M Y
A I V O I C L J R I I A R K Y O I A R U H J G P
C D B K P O A A W P B L J E F D L V L J T P E O
N I S E R Y X O P E E A Q V T R X Y Y P S T H R
U D D O O I F E O C L B B O F S N C T L N Y U P
O R W Y O D L R D Q L J W J S G E I L H O P Y Y
T Y T L X Z O A H J B S P C D Y M Y X V E P Z L
B B U K K J Z L V T R O V M W O W J L F V N Y O
L D X Q J Y A R K L N Q V H O R W I Y O X V E P
B H T H O U B V O P W U O M G A N Z U A P E C H

Urea-formaldehyde
Polyester Resin
PF
MF
Epoxy resin
PET
Polyvinyl chloride
Polypropylene
High density Polythene
High impact polystyrene
Acrylic

POLYMER CROSSWORD



CLUES FOR CROSSWORD

Across

6. reciprocal of mass density is
7. unit of viscosity in CGS system
8. Resistance to flow
9. flow where density varies from point to point
10. fluid in which shear stress is proportional to shear strain

Down

1. fluid which possess viscosity is
2. ratio of dynamic viscosity to density
3. symbol ‘Tau’ is denoted for
4. tensile force acting on surface is
5. CGS unit of kinematic viscosity is

NON-TECHNICAL SECTION

"FAILURE IS THE PILLAR TO SUCCESS"

Human life is all about one long and continuous battle. In this battle either we succeed or fail sometimes. There is a common misconception that failure is a bad thing, many people or students who failed at something are called a loser which is a very wrong concept, but if they learn a lesson from their failure and make improvements next time, then they are actually winners. Everybody faces or suffers a failure in life, but if we don't learn from it then it can be a real failure.

Sometimes we hear that "Failure is good for success!!" because more success can make you rude sometimes, but failure makes man wiser because we get experience from it and this helps us to do our best in the next attempt. Once the famous personality Steve Jobs said "I didn't see it then, but it turned out that getting fired from Apple was the best thing that could have ever happened to me." This statement conveys a message to us that there can be a success behind a failure. So, Don't Be Afraid to Fail, Be Afraid Not to Try!!!

Steeven Chepuri - (T2736)
(SYPPE)

DISCIPLINE

Discipline is not only necessary but also vital for any civilized society, as a matter of fact, discipline and Nature are synonymous with each other and whenever anything happens, which defies or interrupts the usual in Nature, it becomes a calamity, and similarly life without discipline can become chaotic. The term 'discipline' means any training intended to develop moral character or produce a particular pattern of behaviour accepted by afferent institution & society. In modern times, discipline is misunderstood and misinterpreted by some students as rigid and fixed set of rules enforced by others and to be followed without any questions being asked. They feel it is encroachment of their freedom and rights.

Discipline is not a term which is limited to institutions like schools and colleges only. Neither is it a weapon or tool in the hands of adults to control the younger generation or in other words seeking unquestionable compliance. Discipline is neither suppression nor a means to assert one's authority rather it is intrinsic motivation in a person to control oneself, one's emotion, and desires and live in a uniform and orderly manner. That everything in this universe has to follow certain rules, the Sun rises in the East' and sets in the West, come what may, the cycle of seasons also follows a pattern, Night follows, dusk which follows day and dawn, thus, we humans are also governed by rules and following the same is another term for discipline.

Soham Amit Nile - (T2730)
(SYPPE)

"Beyond The Scoreboard"

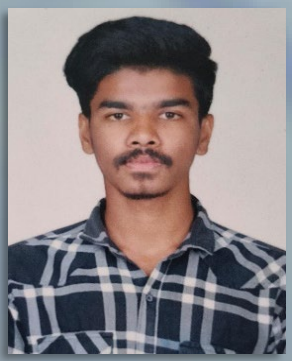
"A magnificent strike soars into the jubilant crowd! After 12 long years. India clinches the World Cup, setting off joyous celebrations in the Indian dressing room. The star of the night, Captain Rohit Sharma, makes a lasting impact on this historic journey as he lifts the World Cup Trophy of 2023". However, beneath the surface of euphoria, a deeper narrative unfolds.

This incredible win, a dream long coveted, seems like a reality woven from the very fabric of cricketing fantasies. The cheers, happiness and excitement reflect what could have been a blissful reality. Unfortunately, the harsh reality now hits, showing us how dreams can be fleeting in real life. The elation of that dream was fleeting, replaced by a profound sense of loss and tears that followed. Rohit Sharma, trying to hold back the tears; Mohammed Siraj, unable to hide the tears, Jasprit Bumrah, the emotion-resistant. KL Rahul sinking to his knees, Virat Kohli hiding his face in his cap and Mohammed Shami walking back to dressing room.

The quest for unmatched joy also means facing the risk of heartbreak. Despite impressive performances, like Rohit Sharma's monumental run tally, Virat Kohli's unprecedented milestones and Shami's relentless wicket-taking streak, echoing with a hollow resonance in the face of this crushing defeat, the Indian cricket team emerges victorious in another arena-the hearts of billions. Their game, coupled with an unwavering display of personality. transcends the boundaries of victory and defeat. The post-match sessions, especially the best fielder medal ceremonies, where the team gathers, highlight their friendship, commitment, and genuine joy for the game.

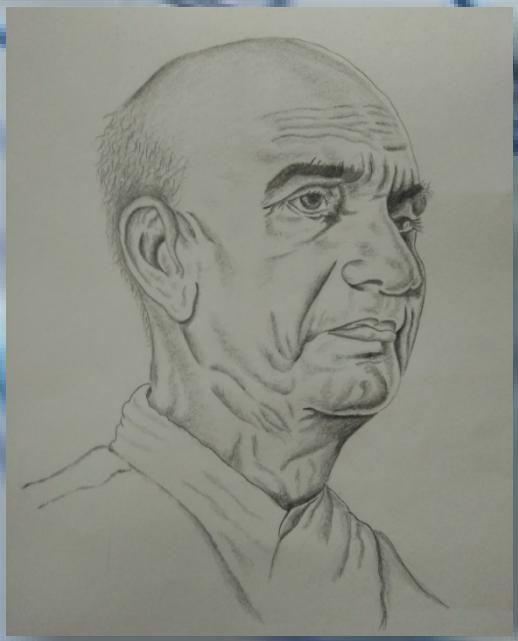
In the heat of the semi-final clash against New Zealand, where the ghosts of the past threatened to resurface, our team emerged triumphant, securing a place in the Finals, defying expectations with a remarkable 10-match winning streak fuelled by determination and heart. This collective embodiment of our dreams, resilience, and unwavering spirit defines the heart of Indian cricket. Now, every Indian heart is healing, turning disappointment into inspiration, awakening a renewed commitment and unity among fans chanting "India! India!" as our undying support for our cricketing heroes continues to grow.

The story doesn't end here; it's a beginning to a new era. Every cheer, every sigh of disappointment, and every heartbeat resonates with the undying spirit of the Indian cricket team. It's a spirit that binds us, inspires us and propels us forward with a renewed sense of unity and purpose. In the words of legendary coach Vince Lombardi, "It's not whether you get knocked down, it's whether you get up." For every Indian cricket enthusiast, this journey is not just a chapter; it's a testament to the unbreakable bond that unites us all. Here's to the spirit that prevails, the saga that resonates, and the undying support that propels our team to greater heights. In defeat or victory, we stand as one-undaunted, unbroken, and forever proud.

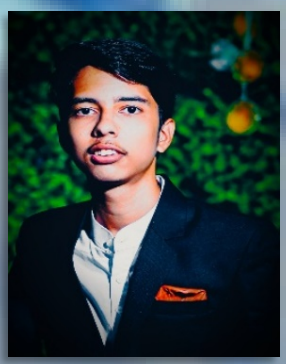


Vishal Rajput - (T2727)
(SYPPE)

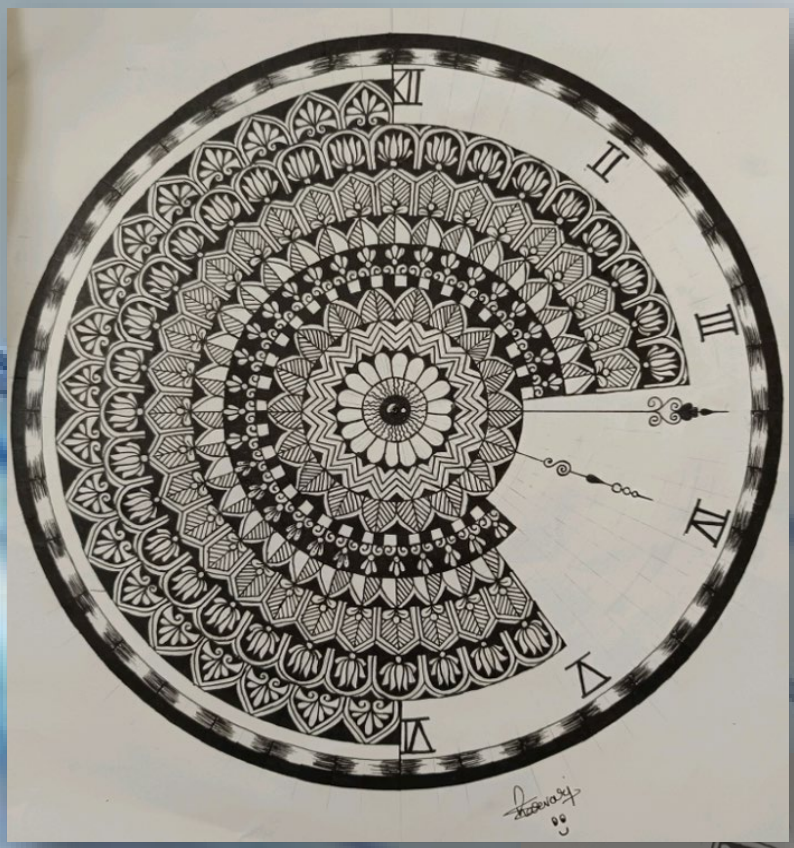
Kuanl Gawande - (T2710)
(SYPPE)



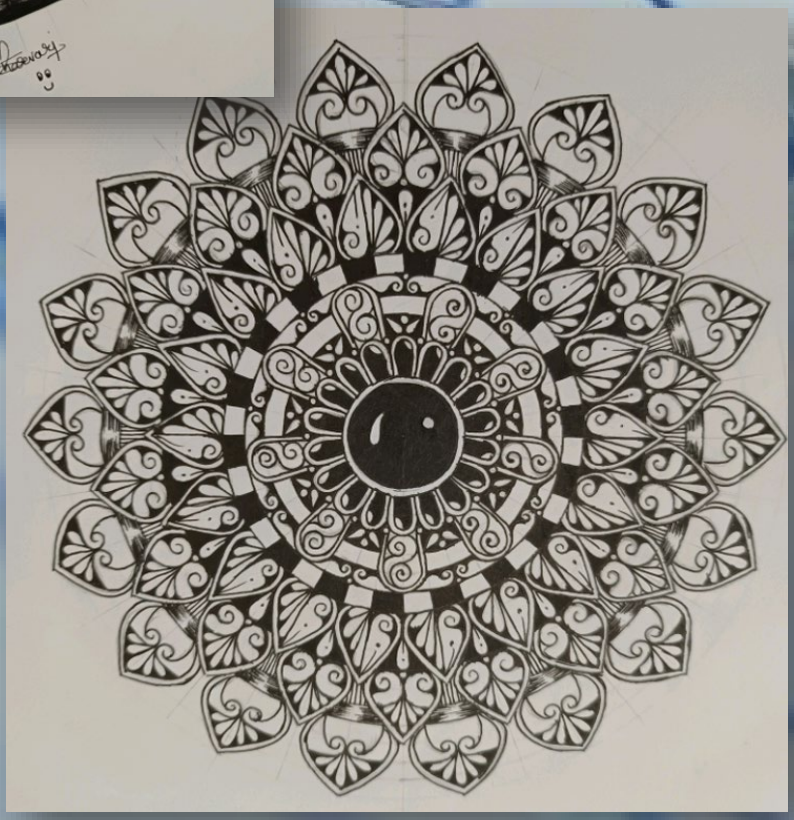
Art by
Yash More - (T3722)
(TYPPE)

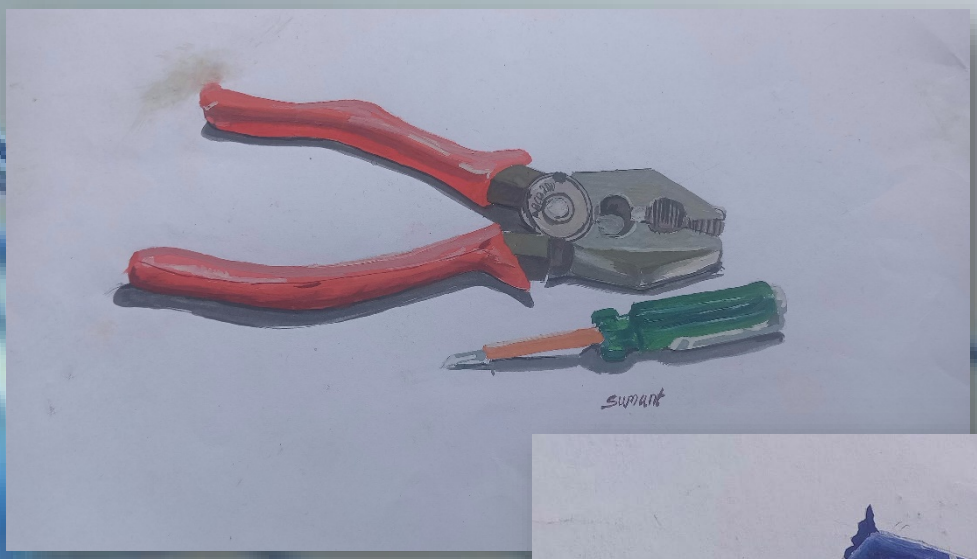


Art by
Utkarsha Sonawane - (T2729)
(SYPPE)



Art by
Sharvari Suryawanshi - (T3735)
(TYPPE)





Art by
Sumant Kumbhar - (T3721)
(TYPPE)

STUDENTS ACHIEVEMENTS / PARTICIPATION

CO-CURRICULAR

Participation of TYPPE students in DIPEX 2025 (Round-01)

STUDENTS ACHIEVEMENTS / PARTICIPATION

EXTRA-CURRICULAR

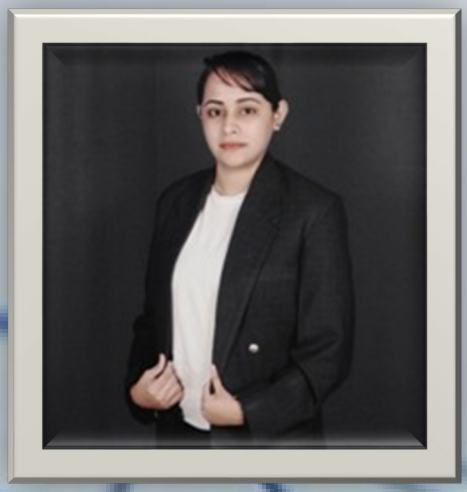
Kalavihangam 2K25 - Winner of Cricket Championship

Kalavihangam 2K25 - Runner-up of Arm Wrestling

Kalavihangam 2K25 - Runner-up of Carrom

Participation in Drama at Lions Club

ALUMNI ACHIEVEMENTS



- Name: Rahimeen Shoukat Sayyad
- Course: M.Tech in Material Engineering
- Institute: Defence Institute of Advanced Technology, Pune
- Batch: 2023-24

- Name: Shweta Rajendra Vaidya
- Course: Masters of Science in Polymer Science and Technology
- At centre for Sustainable Polymers
- Institute: IIT Guwahati
- Batch: 2023-24

Name : Shantanu Bhavthankar

(2020 batch pass out)

He has completed his commercial pilot training in Merritt Island as well he has done with commercial flight instructor and he had work with 2 fly as well buzz airline which is private jet operator in Merritt Island after 1 year experience, he came to India now currently he's in India. He done with conversion flying and passed indigo exams & selected in that exam but he rejected offer for ATR aircraft because he's looking for airbus A320 type rating in Vietnam / Spain.

Name: Badal Panchal
Regional Sales Executive
(2015 Batch pass out)

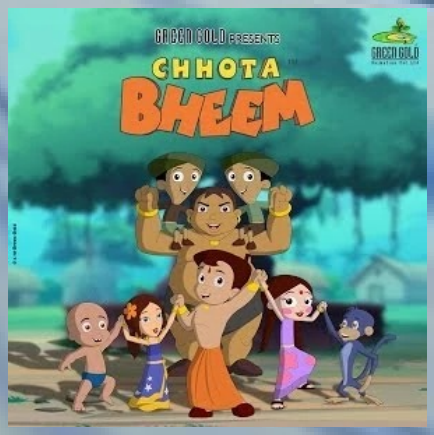
In Nayara Energy, he is working as a Regional Sales Executive - West. He is handling one of the biggest polymer consumption areas of Maharashtra, Daman-Silvassa and Goa locations. He joined Nayara in its initial stage, when they were about to enter in petrochemicals. We have built required system for polymer master creation, Sales database, DCA system and customer complaint portal etc.

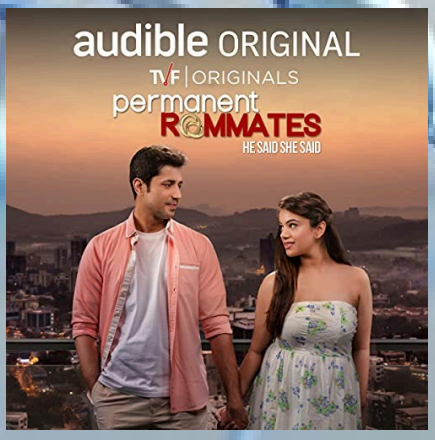
Name: Vishal Talavanekar

Freelance Script Writer and Creative Consultant

(2014 Batch pass out)

- Audio Series Writer for 3 seasons of TVF's 'Permanent Roommates : He Said She Said (Streaming on Audible India)'
- Writer for Radio show 'Crazy for Kishore Shaan Se' Featuring Singer Shaan.
- Scriptwriter on Popular Animated Show Chhota Bheem (Over 75+ Episodes)
- Additional Writer for Takeshi's Castle ft. Bhuvan Bam.





As a writer, he has published his first short story book - Chhapra par pankho in Gujarati language. This story book is a collection of 16 Stories written in 8 years of span. These stories reflect today's youth perspectives towards life, goals, careers, relationships etc

Hearty Congratulations to Dr Umesh for being included in The Editorial Board of Journal "Composites Part B: Engineering"

Umesh Marathe, PhD
Research Assistant Professor
University of Tennessee
Oak Ridge Innovation Institute (UT-ORII)

- Ph.D. from the Indian Institute of Technology, Delhi in 2022
- Master of Technology in Polymer Science and Technology in 2016 from the Indian Institute of Technology, Delhi
- Bachelor of Technology in Plastics and Polymer Engineering from the Maharashtra Institute of Technology, Chhatrapati Sambhajinagar.

OUR TEAM

From left to right: *Utkarsha Sonawane, Sharvari Suryawanshi, Yamin Sheikh, Sagar Sutar, Sumant Kumbhar, Yash More, Pratik Ghagare, Rudrayani Khadse, Kuanl Gawande, Steeven Chepuri, Vishal Rajput, Soham Nile and Narayan Thakkar along with Dr. Subhendu Bhandari (the faculty coordinator, e-magazine)*

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❖ **The students and alumni willing to contribute for the forthcoming issue, are requested to please submit using the following link.**

https://forms.gle/us7VHbc8wjDgsdSRA

We just want to say one word to you

just one word..."PLASTIC"

There's a great future in Plastic.