



# ROHINI

COLLEGE OF ENGINEERING AND TECHNOLOGY

Approved by AICTE and affiliated to Anna University, (An ISO Certified Institution)

Accredited by NAAC with A+ Grade



# BIOTRONIIX

## 2K24

# MAGAZINE



## DEPARTMENT OF BIOMEDICAL ENGINEERING

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# BIOTRONIX 2K24

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## **Address:**

## **ROHINI College of Engineering & Technology**

Near Anjugramam Junction,  
Kanyakumari Main Road,

Palkulam Kanyakumari - 629 401  
Tamilnadu,India

Phone: 04652 - 266665

Email: [admin@rcet.org.in](mailto:admin@rcet.org.in)

Website: [www.rcet.org.in](http://www.rcet.org.in)

## MESSAGES

*From the Desk of the Chairman, RCET*



“Learning gives creativity, creativity leads to thinking, thinking provides knowledge, knowledge makes you great” - **Dr.A.P.J.Abdul Kalam.**

These words by - Dr.A.P.J.Abdul Kalam perfectly describe our aim at Rohini College of Engineering and Technology. Our aim is to teach students to LEARN, not just STUDY. Hence, we strive to travel beyond the boundaries of mere books.

I can proudly say that Rohini College of Engineering and Technology is the most modern and sophisticated multidisciplinary institution, imparting quality education and providing a wide and varied arena for the staff and students to showcase their academic and extracurricular talents.

RCET has made a tremendous progress in all areas crossing several milestones within a very short span of time. I feel happy to know that the students and faculty of BME department of RCET bringing out the technical magazine BIOTRONIX 2k24.

The role of a department magazine is therefore vital in promoting what an institution offers. It brings out into the open things hitherto unrevealed. It brings to light the names of the unsung heroes and their mighty deeds.

I am proud to say that once our students step in RCET, they step out with self-confidence and knowledge to face all future endeavors with full conviction. Fly in the plane of Ambition, Land in the Airport of Success, the luck is yours the wish is mine. May your future always shine. Good Luck.

Cordially,

Shri.K.NEELA    MARTHANDAN  
Chairman Rohini Groups.

## *Principal's Message*



Dear All,

“All thinks are within you”

Good to see an another magazine BIOTRONIX 2k24 from the department of Biomedical Engineering.

I honor the peoples those who put hard work to complete the magazine for the successful publication.

I greet the Students for their great efforts and contribution in BIOTRONIX 2k24. Education does not happen just within the four walls of a classroom, but without too – in the corridors, the playgrounds and every corner of the campus.

I extend my wishes to the diligent Faculties, the backbone of this magazine who spent their time and expertise to make the students believe in themselves.

**Best Wishes,**

Dr. R. RAJESH, M.E., Ph.D. Principal,  
Rohini College of Engineering & Technology Palkulam,  
Kanyakumari.





# HOD's MESSAGE



Dear Biomedical Students,

As you embark on your journey in the field of biomedical sciences, remember that you are entering a realm where every discovery has the potential to transform lives. Your dedication to understanding the intricacies of biology, medicine, and technology holds the promise of breakthroughs that can revolutionize healthcare.

Stay curious, stay passionate, and never underestimate the impact of your work. Whether you're exploring new treatment modalities, deciphering the mysteries of the human body, or developing innovative medical devices, know that your contributions matter.

Embrace challenges as opportunities for growth, collaborate with your peers and mentors, and never lose sight of the ultimate goal: improving the health and well-being of individuals and communities around the world.

Your journey in biomedical sciences will be demanding, but it will also be immensely rewarding. Keep pushing boundaries, keep pushing forward, and remember that the world eagerly awaits the discoveries that you will make.

Best wishes on your academic and professional endeavors.

Sincerely,  
Dr.R.B.Benisha  
Hod/BME

## ***From The Desk Of Editor***



The Creative minds of the Biomedical Engineering department of Rohini College of Engineering and Technology have come together to present what they have always wanted to and we congratulate every student who has given their contribution.

They can't be appreciated enough and we can't explain how difficult it was to compile all their accomplishments into a single magazine. We take pride in showing you of how our very own Rohini students have imaginations which spread across the horizons.

We would like to thank the Management and all the staffs who have supported the 'BIOTRONIX 2K24' initiative and for having trust in the Editorial board by giving us full freedom to choose the contents and design for our magazine. The magazine should serve as a pillar of motivation for every other student who is yet to emerge as an Achiever and to carry the legacy of BIOTRONIX 2K24. The students who follow in the next academic years, we advise you to do the same. Go Mad, B.E. productive but at the same time B.E. creative!

Best Wishes,  
Mrs.Dhanees surya Jenifer.K  
Assistant Professor / BME  
Associate Editor

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Best Wishes,  
Mrs. Anlin Sahaya Infant Tinu  
Assistant Professor / BME  
Associate Editor



# ABOUT DEPARTMENT

The objective of biomedical research is to understand the underlying mechanisms of diseases and develop innovative solutions for diagnosis, treatment, and prevention. This field aims to improve healthcare outcomes by advancing medical technology, drug discovery, and personalized medicine. Biomedical research also focuses on addressing global health challenges, such as infectious diseases and chronic conditions. Collaboration between scientists, clinicians, and engineers is essential to achieve these objectives. Ultimately, the goal is to enhance human health and well-being through scientific discovery and innovation.

## SCOPE

### IN RESEARCH AREAS

- Tissue Engineering and Biomaterials
- Biomechanics
- Biomedical Imaging
- Biomedical Electronics
- Neuroengineering
- Cardiovascular Engineering
- Bioinformatics
- System Physiology

# UNIQUENESS:

- An ISO Certified institution, Autonomous and NAAC A+ Grade.
- Project cost of Rs.26,75,000/- sanctioned by AICTE under the Modernization and removal of Obsolescence Aspirational-(MODROB-ASP)
- Project sanctioned worth Rs.5, 00,000/- by Tamil Nadu State Council for science and Technology (TNSCST) for the proposal “Mapping of Science and Technology needs of Tamil Nadu”.
- Received fund of Rs.1.5 Lakhs for the Scheme Unnat Bharat Abhiyan under the Ministry of Human Resource and Development (MHRD).
- The outcome of the faculty research is published in major research journals and reputed international conferences in India and abroad.
- The Institute boasts of about 42 patents including 1 Australian patent, out of which 39 patents have been published and 3 granted till date.
- All the departments have set up Product Development Centre to inculcate research practices in the student community.
- The Institute facilitates the placement training activities with the help of industry experts and corporate trainers to prepare the students industry-ready, apart from providing placement training right from First year in the regular schedule for the Distinctive Syllabus framed.
- Over 90% of the eligible students are placed in reputed companies such as Cognizant Technology Solutions (CTS), Capgemini, Infosys, Tata Consultancy Services, Wipro India Limited, Ramco Systems, Nggawe Nirman Technologies etc., with a salary package ranging from 2.5 LPA to 4 LPA.
- RCET has signed Memorandum of Understanding(MoU) with certain leading industries and Premier Institutes to attain symbiosis and to reduce the gap between Industry expectations and Academics. The Institute has MOU with:
  - o SWAYAM - NPTEL Local Chapter.
  - o Nodal Centre for Virtual Lab of IIT, Kharagpur.
  - o Siemens Centre of Excellence in Manufacturing, NIT Trichy.
  - o IREL(India) Limited
  - o Natural Resources Development Project -Vivekananda Kendra.

# ABOUT



Rohini college of Engineering and Technology (RCET), founded in the year 2012 by Shri.K.Neela Marthandan, a great Industrialist and philanthropist, stands out as a prestigious Institution of higher learning

with a mission of pursuing excellence in education and research.

The

institution is run by Dr.N.Neela Vishnu as the pro chairman and Dr.V.M.Blessy Geo as Managing Director.

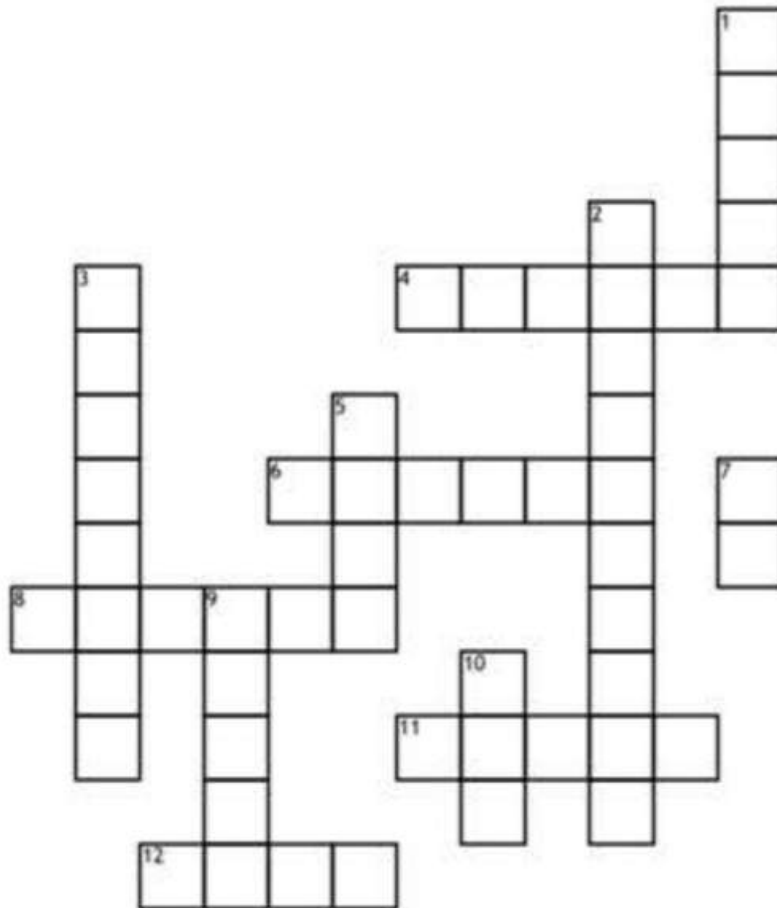
The institution, with dynamic community of students offers 7 undergraduate programs, 5 postgraduate programs and a research program in the Department of Mechanical Engineering with accomplished faculty, high class facilities and premium hostels. RCET is located at Palkulam near Anjugram which is 5 kms from Kanyakumari and 14 kms from Nagercoil junction.



*CROSS WORD*

# CROSS WORD

## MANNA TOAST CEREAL CROSSWORD PUZZLE



### Across

4. What was the name of Abraham and Sarah's only son?

6. What word represents the phrase "May the Lord watch between you and me while we are apart one from another?"

8. He doubted

11. Who was the first man

12. What instrument did David play?

### Down

1. Who parted the Red Sea?

2. One of the 12 Apostles ( It is hard so I'll give you a clue, It begins with B

3. What is the name of the High Priest?

5. What animal did Jesus cast demons into?

7. Those who obey God will \_\_\_ to Heaven.

9. WHAT FOOD WAS SENT FROM HEAVEN

10. I am who I am

**Jaiharish.M.R**

**II Year BME,RCET**

# SUDOKU

	2		6	4		3	7	5	1	2	9
			1		3	9	6	4		5	
3	6	4	9	7	5						4
6	9		2	1	4	5	8	7			6
1		2		5	7	4	9	6		1	
4	7	5	8	6	9		3	2		4	7
2	1		5	8	6		4		2		1
7			4	9	1		5		6	7	3
5		8	7	3		6	1	9		8	5
3	2	4	1		8	9	6	5			4
	6	1	9		5		7	4		6	8
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Akalya Lekshmi  
II Year BME,RCET

# ***RIDDLE***






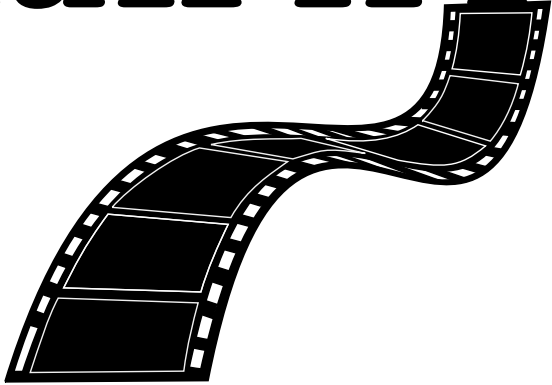
# RIDDLE

- 1, What lies at the bottom of the sea and shivers?
- 2, What is small and round and has holes?
- 3, Starts with 'T' Ends with 'T' And is full of 'T'?
- 4, What is a foreign ant
- 5, Why does a horse have 6 legs?
- 6, What would you call 5 bottles of fizzy lemonade?
- 7, What can you put in a wooden box, That will make it lighter?
- 8, What is it that you will break Even when you name it?
- 9, What goes into the water black and comes out red?
- 0, What is the longest night of the year.





# ***PHOTOGRAPHY***





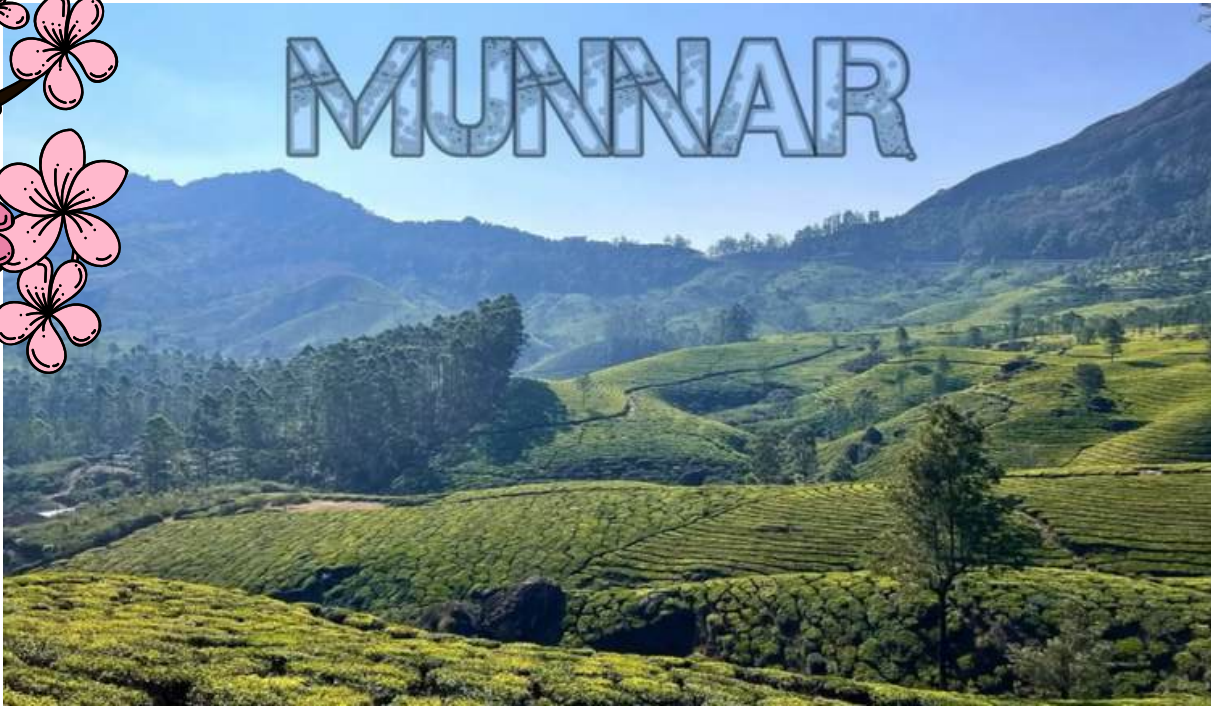
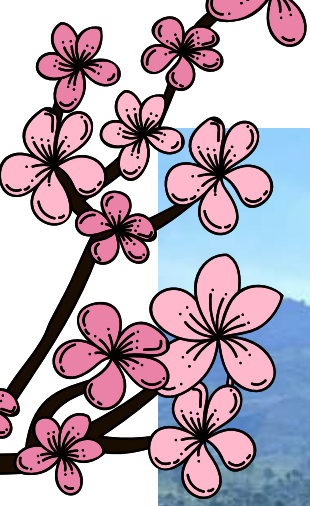
**T.THARUN KUMAR**  
**II-YR BIOMEDICAL ENGINEERING,RCET**





**FIONNA ANANTH**  
**II-YR BE BIOMEDICAL**  
**ENGINEERING,RCET**

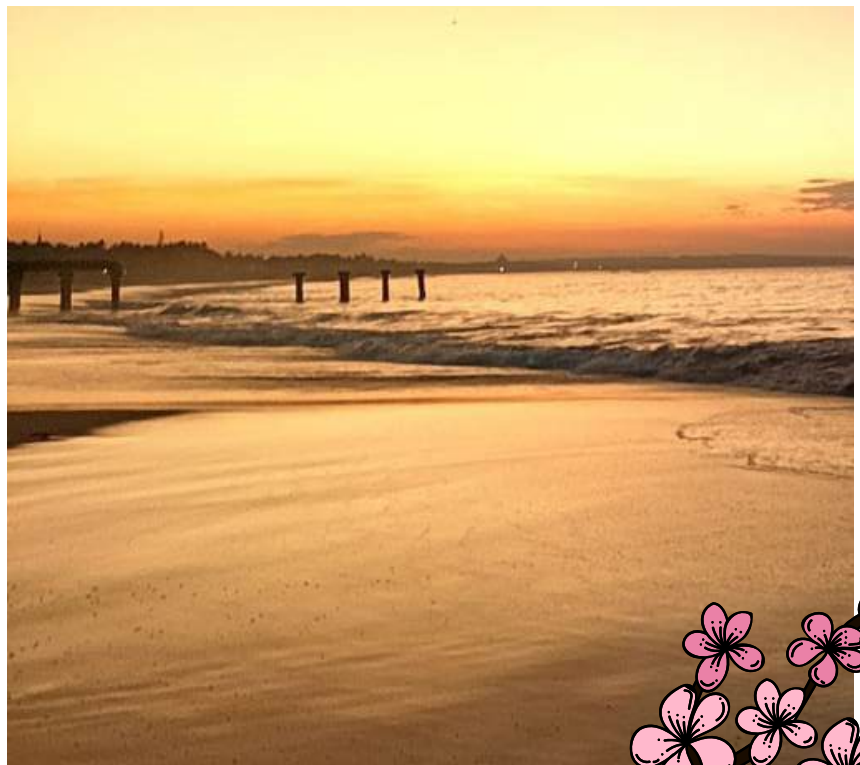




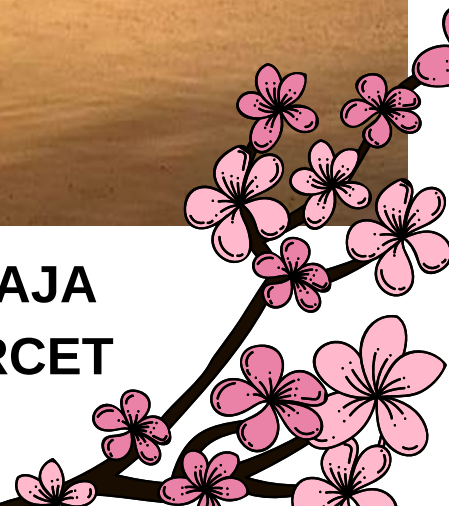
**J.SURAJ**  
**II- BE BIOMEDICAL ENGINEERING,RCET**



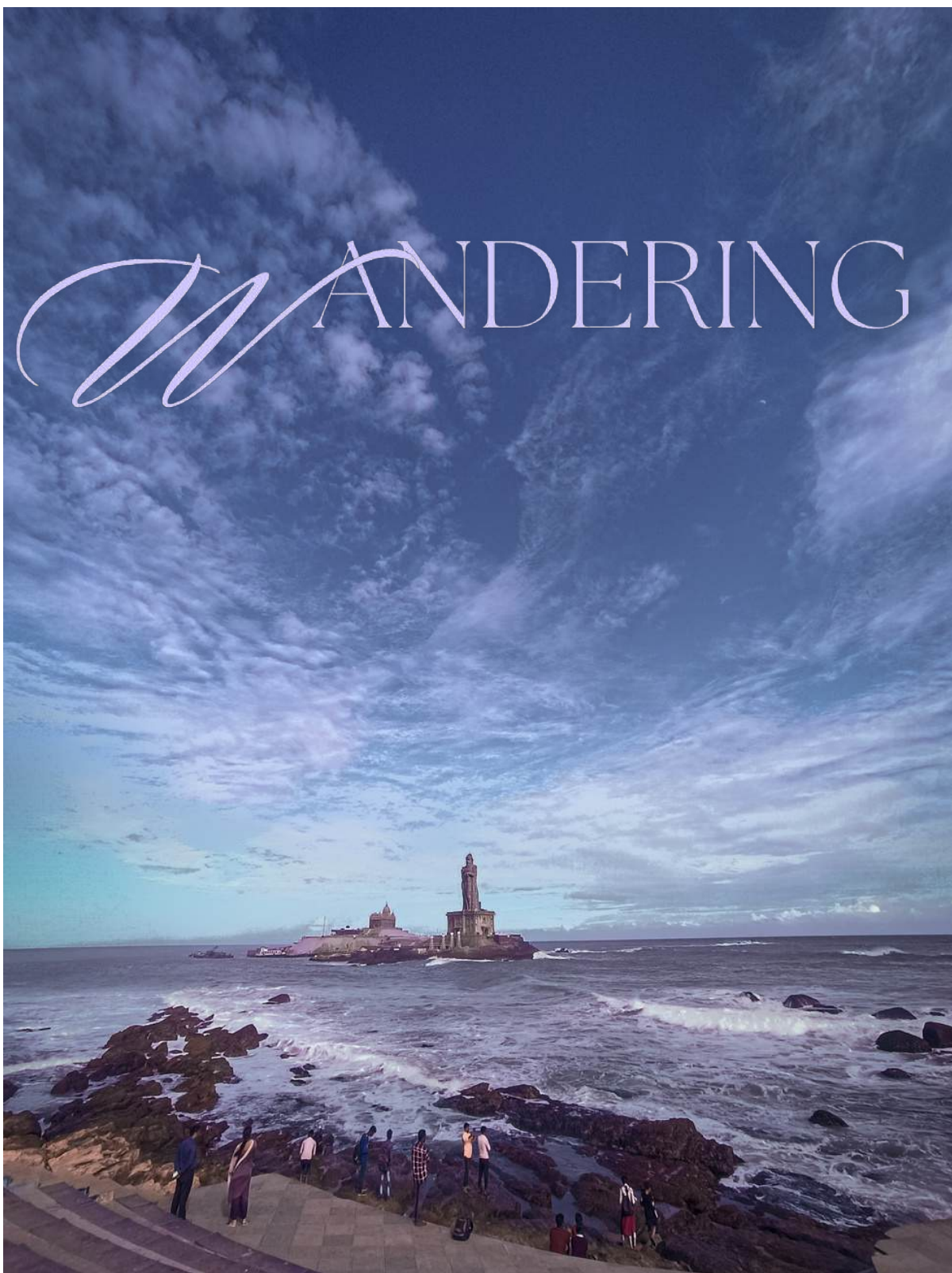
**J.ASLIN**  
**II-BME,RCET**



**ABEESH RAJA**  
**II-BE BME,RCET**



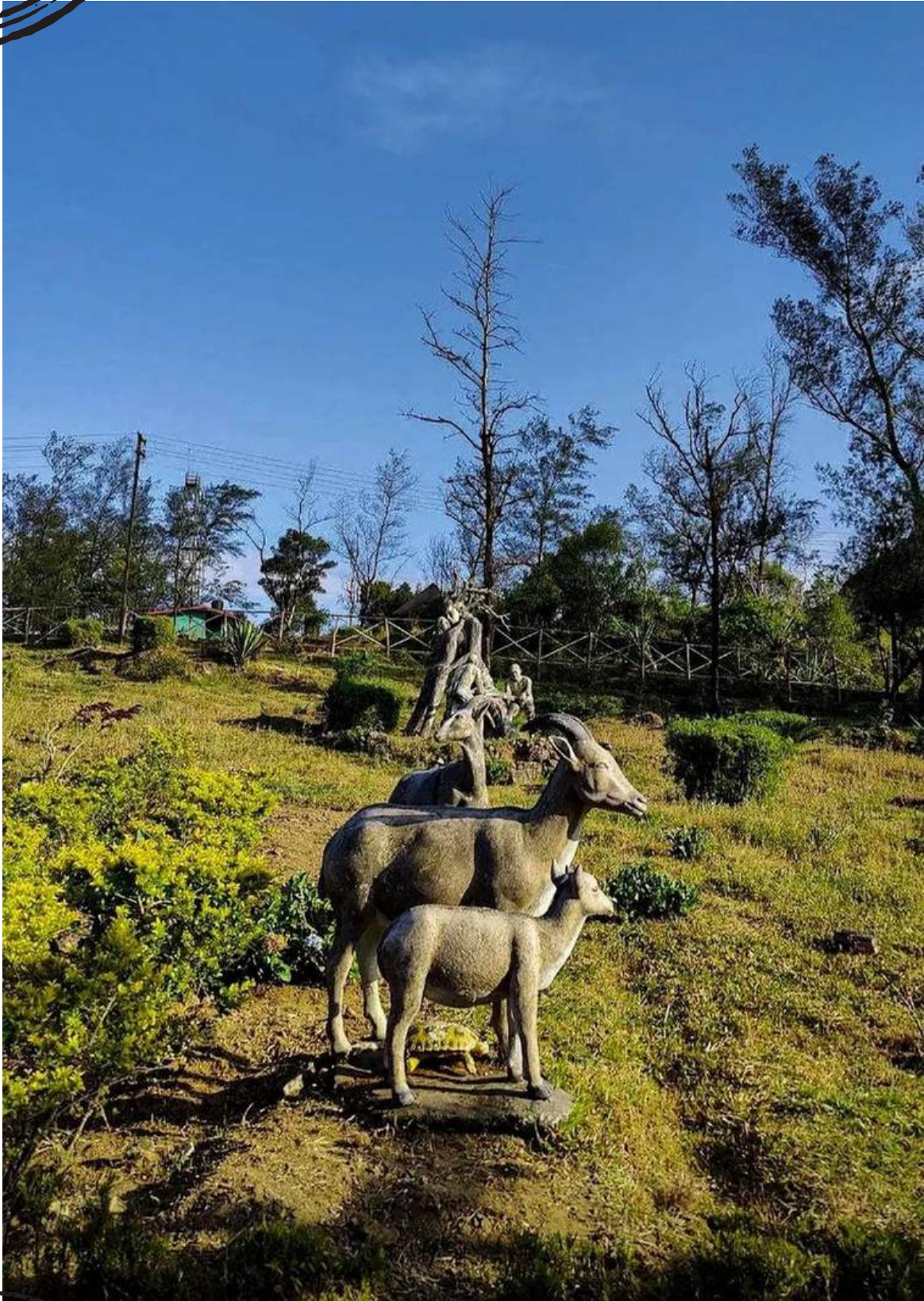




# WANDERING

Aishwarya Devi .M.I  
U Year BME, RCET





*Indhuja.D*  
*II Year BME,RCET*



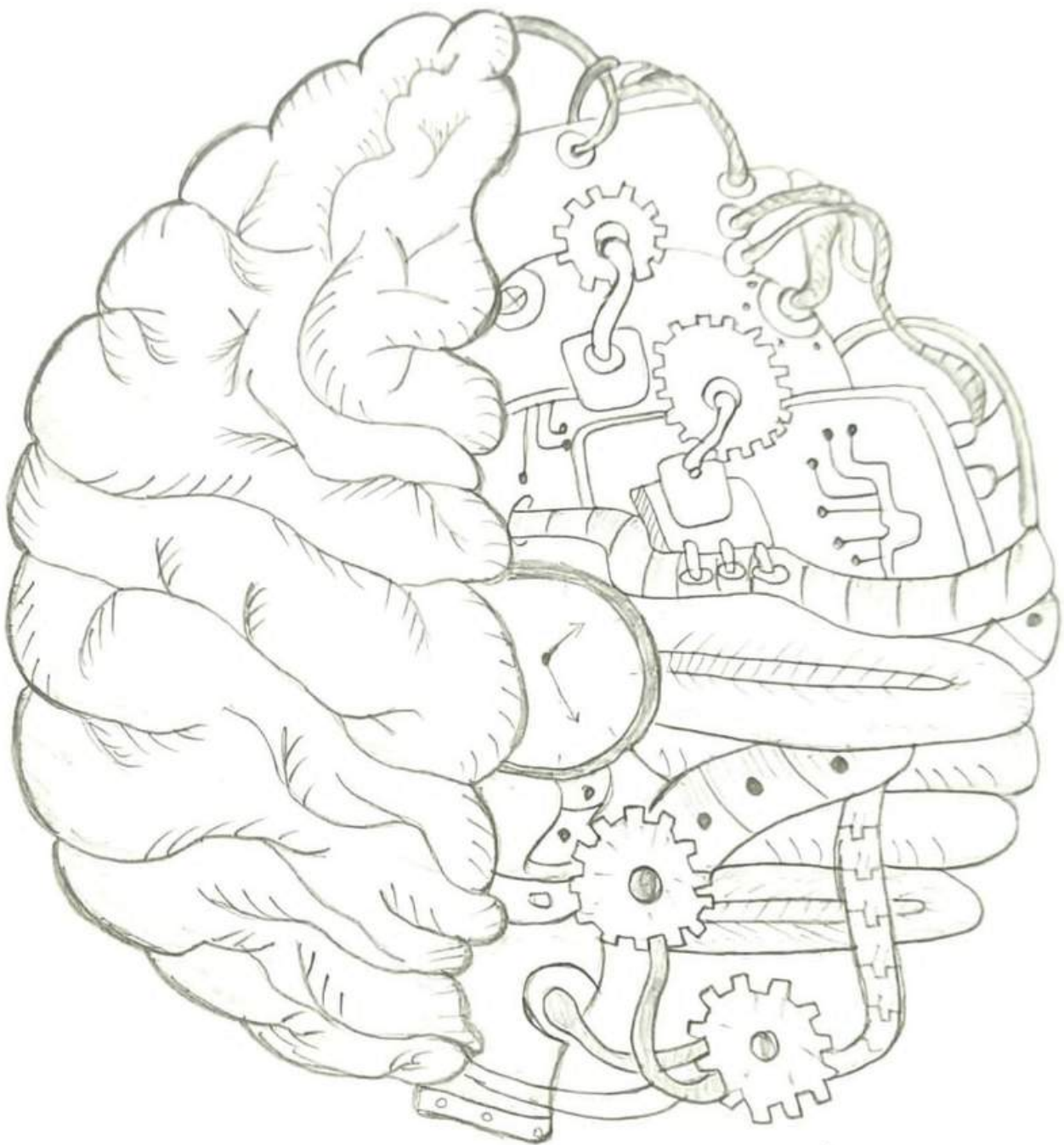
***DRAWING***



monica

**II-YR BE BIOMEDICAL ENGINEERING,RCET**





Anisha

**Anisha mol**  
**II Year BME,RCET**



Mathumitha  
II Year BME, RCET







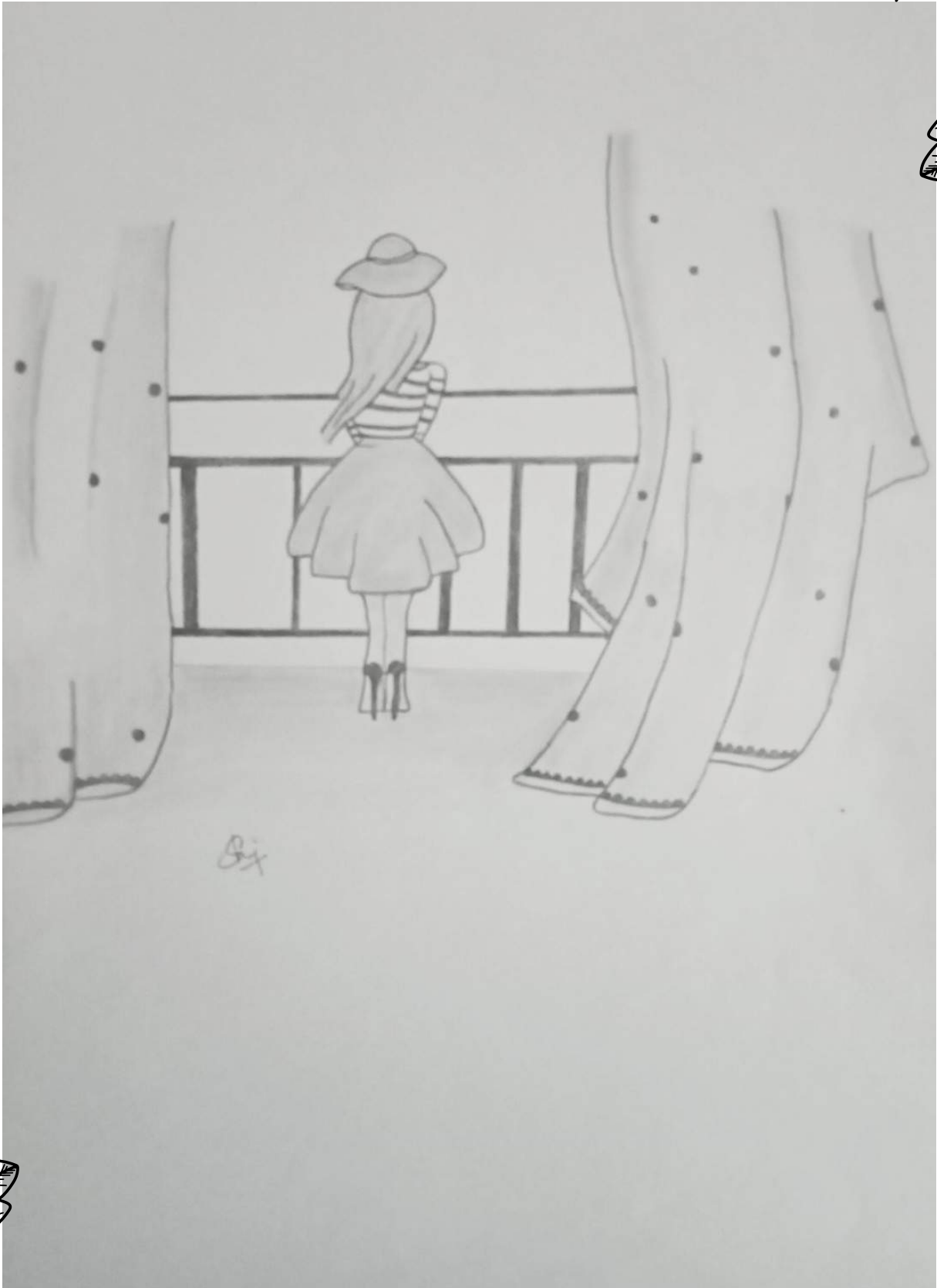
**Sindrella**  
**II Year BME,RCET**



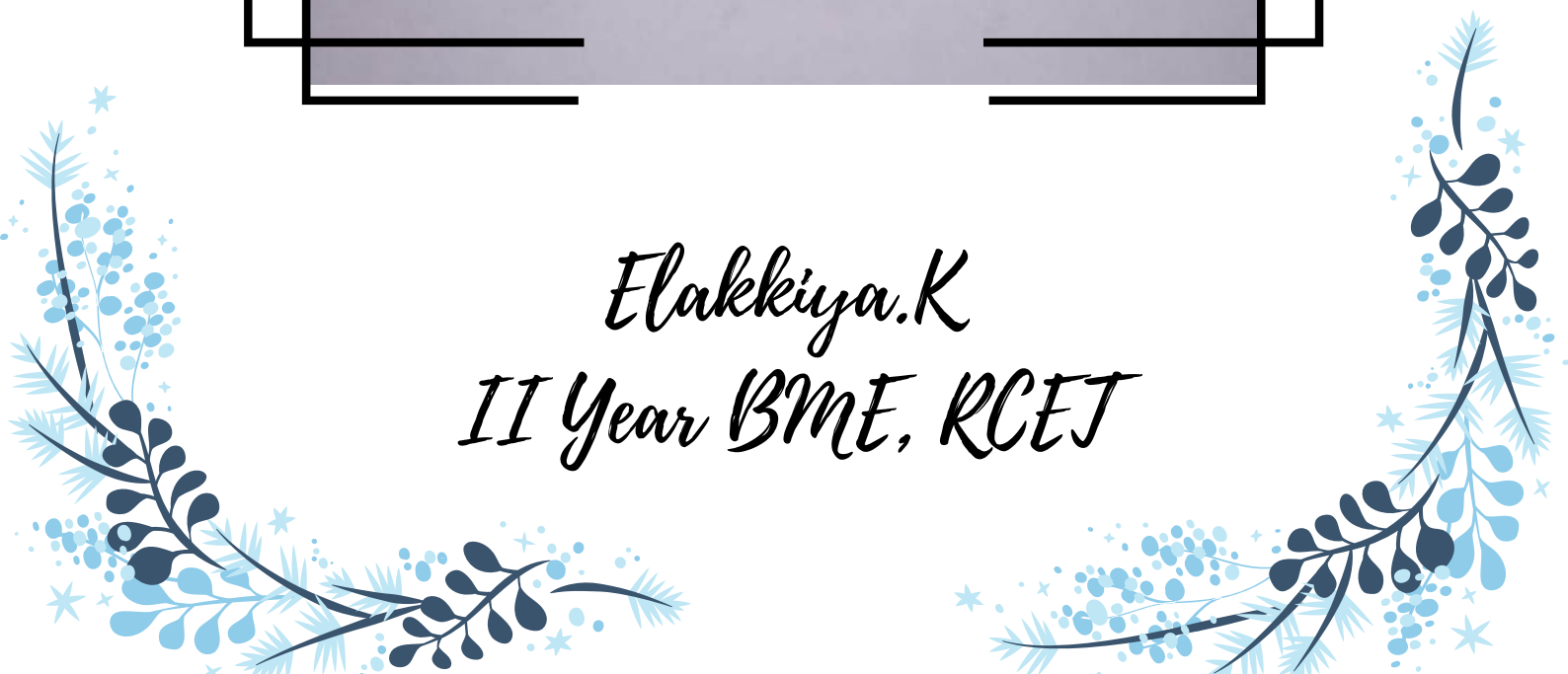
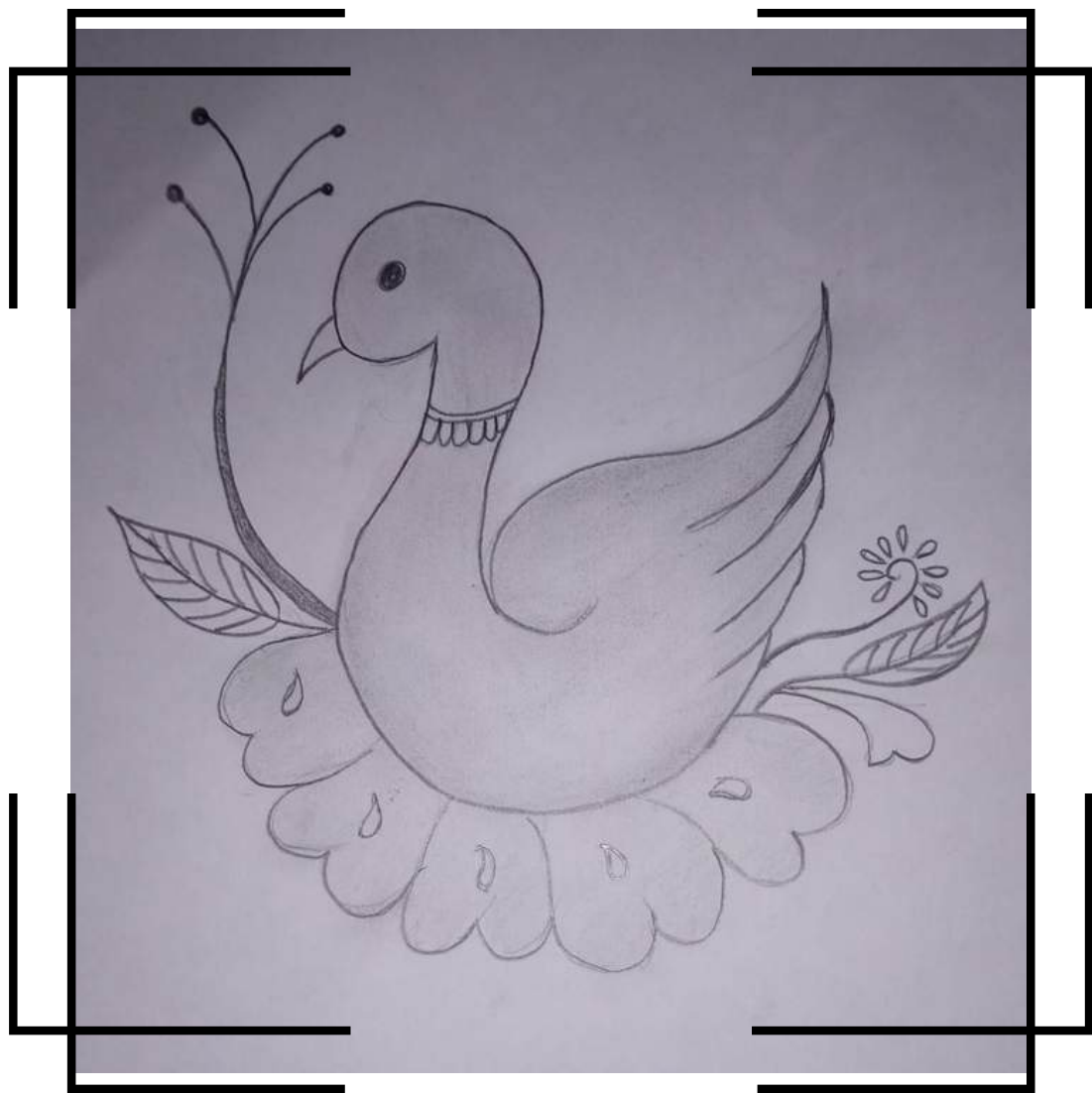




**Beni .C**  
**II-Year BME,RCET**



Beaula  
II Year BME, RCET



*Elakkiya.K*  
*II Year BME, RCET*





**Nandhini**  
**11 -Year BME,RCET**





*Reshma .M*  
*II Year BME, RCET*





# MONICA

II-YR BE BIOMEDICAL  
ENGINEERING,RCET

***POEM***



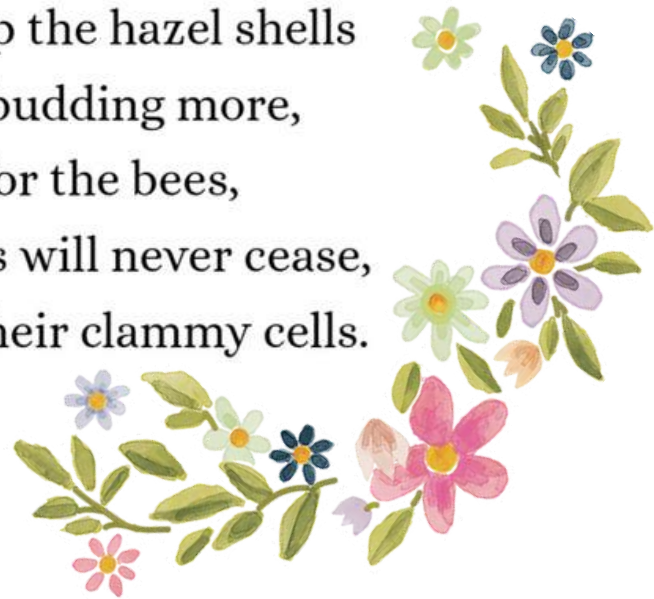


## To Autumn



Season of mists and mellow fruitfulness,  
Close bosom-friend of the maturing sun;  
Conspiring with him how to load and bless  
With fruit the vines that round the roof

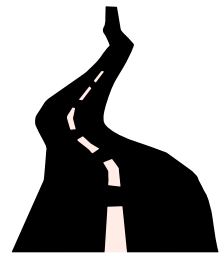
To bend with apples the moss'd cottage-trees,  
And fill all fruit with ripeness to the core;  
To swell the gourd, and plump the hazel shells  
With a sweet kernel; to set budding more,  
And still more, later flowers for the bees,  
Until they think warm days will never cease,  
For summer has the beauty their clammy cells.



**Shoma**  
**II Year BME,RCET**



# THE ROAD NOT TAKEN

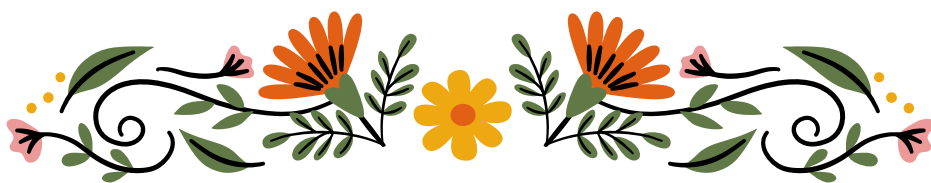


Rise You may write me down in history ;  
With your bitter, twisted lies;  
You may tread me in the very dirt;  
But still, like dust, I'll rise.

Do not stand at my grave and weep;  
I am not there. I do not sleep;  
I am a thousand winds that blow;  
I am the diamond glints on snow.

Whose woods these are I think I know.  
His house is in the village, though;  
He will not see me stopping here  
To watch his woods fill up with snow.

**ABINAYA .K**  
**II YEAR BME, RCET**





நட்பு...

தனிமையை எதிர்பார்த்து கல்வாரிக்கு வந்து;  
எதிர்பாராமல் அமைந்த நட்பு

நால்வர் என கூட்டு சேர - உடன்  
நால்வர் சேர; எடபாய் மாநிலினாம்

சண்டைகள் ஆவிரம், கோபங்கள் ஆவிரம்;  
சேர்ந்து உலாவிய கிடங்கள் ஆவிரம்;

அம்மா - பிள்ளை, அண்ணன் தங்கை,  
என குடும்பமாய் மாநிலினாம்.

கிதுவல்லவோ நட்பு என காண்போர் பொறாமை கொள்ள;  
நட்பு நீடிக்க அமைதி காத்தோம்

வேடிக்கை மட்டுமின்றி படிப்பும் சேர்த்து  
கிந்த நட்பு நாளும் தொடரட்டும் .....

~ Fionna

**Fionna Ananth**  
**II-YR BE BIOMEDICAL**  
**ENGINEERING, RCET**





# POEM

## *Another Time*

For us like any other fugitive,  
Like the numberless flowers  
That cannot number and all the beasts  
That need not remember,  
It is to-day in which we live.

So many try to say Not Now,  
So many have forgotten  
how To say I Am,  
And would be Lost,  
If they could, in history.

No wonder then so many die of grief,  
So many are so lonely as they die;  
No one has yet  
Believed or liked a lie:  
Another time has other lives to live.

**DHARSHINI.T**  
**II YEAR BME, RCET**



# Story

## A farmer and his sons

Once there was a farmer. He lived in a village. He had three sons who always quarreled with one another. The farmer got very sick. He was very upset because of his sons attitude. One day the farmer brought a bundle of sticks. He asked them to break it. They tried their best but could not do so. Then the farmer untied the bundle. He told them to break the sticks. They broke them easily. The farmer said, "United we stand. Divided we fall". His sons learnt a lesson and began to live in peace.

## Moral

Union is Strength



**Ezhil Arasi**  
**II Year BME,RCET**



# Short story



## SEEING OPPORTUNITIES IN OBSTACLES

Once there was a king who was curious but wealthy. He decided to test his fellow people to know who has a got a good attitude in life and who would spare some time for country's progress.

He placed a huge boulder right at the middle of the road and hid in a nearby place to see if anyone would make an attempt to move it off.

He saw some wealthy merchants and courtiers passing by the road. None of them made any attempt to move it off but simply walked away while some others blamed the king for not maintaining roads.

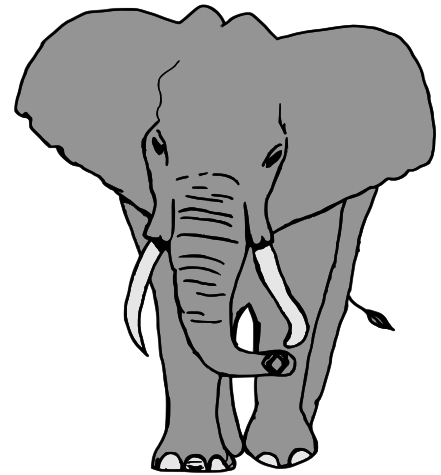
Later, a peasant came the way with a load of vegetables and saw the boulder. He kept his load down and tried to move the boulder away. After strenuous effort, he succeeded in moving it away. He saw a purse lying in the place of the boulder. It contained many gold coins and a note from the king which read 'this is the reward for the person who moves the boulder away'.

**Moral:** It is quite common for people to run away from problems and obstacles. But the story clearly shows the importance of seeing an opportunity in every obstacle which might improve our condition. Invest some time to remove obstacles on your way and experience many unseen presences.

**Jothimalar**  
**11 Year BME,RCET**



# STORY



## The Elephant Rope

A man was walking nearby to a group of elephants that was halted by a small rope tied to their front leg. He was amazed by the fact that the huge elephants are not even making an attempt to break the rope and set themselves free.

He saw an elephant trainer standing beside them and he expressed his puzzled state of mind. The trainer said “when they are very young and much smaller we use the same size rope to tie them and, at that age, it’s enough to hold them.

As they grow up, they are conditioned to believe they cannot break away. They believe the rope can still hold them, so they never try to break free.”

Moral: It is the false belief of the elephants that denied their freedom for life time. Likewise, many people are not trying to work towards success in their life just because they failed once before. So keep on trying and don’t get tied up with some false beliefs of failure.



**Santhiya.S**  
**II Year BME,RCET**

# ACHEIVEMENTS



\*On October 14,2023 -Rohini Hackathon was held .Our department students participated in it ,they presented a paper related to 3D printer filament Recycling. They won a second prize in Hardware .

The names are listed below,

Team Leader-A.R.AADHIRA SULEIM

Team Members -Fionna,Eldin,Shahnas,Renita,Aslin

\*on 16th March,2024-Sports Day was Held.our Department student participated in it,  
J.Aslin of II Year BIOMEDICAL ENGINEERING DEPARTMENT won Second prize on Badminton.

\*on October 21st,2023 -Spectra was held .Our Department students participated in it,  
S. Anushuya of II Year BIOMEDICAL ENGINEERING DEPARTMENT won First prize on Paper presentation.The Topic is related to Bio Printing.

\*on October 21st,2023-Spectra was held..Our Department students participated in it, S.Monica of II Year BIOMEDICAL ENGINEERING DEPARTMENT won Second prize on Paper presentation,The Topic is IVF

\*On October 21st,2023-Spectra was held.Our Department students participated in it,S.Monica of II Year BIOMEDICAL ENGINEERING DEPARTMENT won First prize on poster presentation.

