## Hon'ble Dr. Pantangraoji Kadam Saheb
## Founder, Bharati Vidyapeeth

## BLESSINGS

## Bharati Vidyapeeth's

## College of Engineering for Women, Pune

*Participation of women in technology is an important aspect in social and economic development of the nation. It is a critical constituent in the process of improving the quality of life of women themselves. When women have economic empowerment, it is a way for others to see them as equal members of society. Through this, they achieve more self-respect and confidence by their contributions to their communities. As women play key roles in social transformation, Hon'ble Dr. Patangraoji Kadam Saheb established Bharati Vidyapeeth's College of Engineering for Women, Pune in June 2000 with the vision, "Women empowerment through Technical Education" and provided opportunity to women for higher education in the field of technology. The institute was started exclusively for women and it is running with 100% women students. Establishing and running Women Engineering College really contributes to social transformation through dynamic education which is the vision of Bharati Vidyapeeth.*

# Bharati Vidyapeeth's College of Engineering for Women, Pune

**Pune-Satara Road, Dhankawadi, Pune 411043**
**Recognized by AICTE, New Delhi, DTE Mumbai**
**Affiliated to Savitribai Phule Pune University, Formerly University of Pune**
**Accredited by NAAC**
**Id No.: PU/PN/Engg./150/2000, DTE College Code: EN6285**
**Phone: (020)24371684, (020)24361732  Fax: (020) 24372210**
**Email: coewpune@bharatividyapeeth.edu,  Website: http://coewpune.bharatividyapeeth.edu**

## Undergraduate Programme

| Sr. No. | Course | Intake | Course Code |
|---------|--------|--------|-------------|
| 1 | B.E. Electronics and Telecommunication Engg. ( E & TC ) | 120 | 628537250 |
| 2 | B.E. Computer Engg. ( CE ) | 60 | 628524550 |
| 3 | B.E. Information Technology ( IT ) | 60 | 628524650 |

## Post Graduate Programme

| Sr. No. | Course | Intake | Course Code |
|---------|--------|--------|-------------|
| 1 | M.E. ( E & TC-VLSI & Embedded System ) | 18 | 628534150 |

### Vision:

Women Empowerment through Technical Education

### Mission:

- Develop women students to rise to their full potential.
- Impart knowledge and prepare competent engineers.

### Special Features:

1. Received "Best Women College of the Year 2019" Award.
2. Recipient of "College of Substance" Award.
3. The oldest engineering college "exclusively for women".
4. All government scholarships are applicable for eligible students.
5. Placement opportunities in multinational companies with 100% assistance.
6. Excellent university results and tradition of consistent university rank holders.
7. MOUs with reputed industries and academia.
8. On campus hostel facility with 24 × 7 security.
9. DTE approved e-Scrutiny centre for admissions.

**Facebook:** https://www.facebook.com/Bharati-Vidyapeeth-College-of-Engineering-for-Women-Pune-1599060517007121
**Instagram:** https://instagram.com/bvcoew_pune?igshid=ep1a85ikhj6s

# Principal's Message

**Prof. Dr. S. R. Patil**

**Principal**

*Dear Students, parents and all the stakeholders, greetings from BVCOEW, Pune. Hope you all are well and keeping good health.*

*I am really delighted to release the e-newsletter 'Blessings…', Volume 4, Issue 2, A. Y. 2021-22 of our college. After 2 years of COVID-19 pandemic and online education we have once again started functioning in 'offline' mode from February 2022 with all necessary safety precautions. Once again we are enjoying the liveliness of academic in classrooms and laboratories with our dear students.*

*The e-newsletter is very powerful platform to present all the technical activities, achievements of students and teachers during last semester. I highly appreciate the team efforts of Coordinator Prof. Dr. Deepali Godse, Chief Editors and Editors for making the e-newsletter a grand success. I also extend my best wishes to the student editorial team.*

*The e-newsletter is the outcome of great teamwork and we always believe in "TEAMWORK IS THE KEY TO SUCCESS".*

# From the Desk of Coordinator...



**Prof. Dr. D. A. Godse**

**Newsletter Coordinator**

*Hello everyone!*

*I am extremely delighted and proud to announce the release of our e-newsletter, Volume 4, Issue 2, AY 2021-22. It's a pleasure that after two years our institute has organized activities in offline mode again with hard work and keeping in mind the safety and security. Our editorial team enthusiastically worked as usual for reflecting these activities via e-newsletter. We are back with photographs of all activities organized in the institute physically during last semester instead of the screenshots of online events as done for last four semesters. As the Greek philosopher, Heraclitus said, "Change is the only constant." We should be ready to accept the change and face the situations. Our young, dynamic and energetic students and staff easily adapted to the situations. In order to keep the stakeholders widely interested and updated, we release the e-newsletter at the start of each semester. The e-newsletter will serve to reinforce and allow increased awareness, improved interaction and integration among all of us.*

*I would like to extend my sincere thanks to our Principal, Prof. Dr. S.R. Patil, all Heads of Department, staff members and beloved students. I truly appreciate dedicated and systematic efforts of the editorial team members.*

*I am sure, this tradition of communicating the significant technical events and activities with our stakeholders will be continued forever with the blessings of our honourable Founder of Bharati Vidyapeeth, Dr. Patangraoji Kadam Saheb via e-newletter, "Blessings...".*
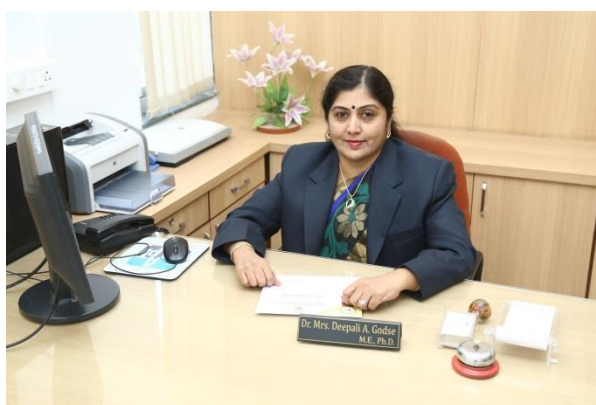
# Department of Information Technology

## Vision
Globally competent women engineers through excellence in IT education.

## Mission
- Develop requisite skills and competencies in the field of IT.
- Groom students for responsible and rewarding careers in the field of IT.
- Build confidence and personality development through curricular, co-curricular and extra-curricular activities.

## HOD's Message



**Prof. Dr. D. A. Godse**
**Head of Information Technology Department**

With the college closure for almost two years due to the outbreak of the COVID-19 virus, colleges are slowly reopened again in the last semester. While most of the students are relieved to go back to college and are happy that they can interact with their friends, classmates and teachers in person rather than talking to them across a screen, the transition was challenging. The pandemic brought in a drastic change in the teaching-learning system. However, our faculty and students seamlessly accepted the changing scenario, i.e. online to offline and completed all the academic activities and also participated in co-curricular and extra-curricular activities enthusiastically along with academics. Despite the pandemic placements are good. The last year (BE) students participated in technical activities organized by various institutes in online/offline mode and also submitted papers to the journals for publication which is the tradition of IT department. We are happy that staff and students come back to offline mode with confidence. As said by Blake Lively, "The most beautiful thing that you can wear is confidence".

This e-newsletter is the reflection of all the activities and achievements of our staff and students during the last semester with creative efforts by our editorial team.

# "Workshop on Excellent Bytes"

Workshop on "**Excellent Bytes**" was organized by Student Associations and Training cell of Bharati Vidyapeeth's College of Engineering for Women, Pune for Third year (TE) and final year (BE) students of all Departments. The webinar was organized under AICTE-SPICES grant on 11th February 2022. The speaker of the webinar was **Mr. Aashish Jain** from **Carpe Diem Boot Camp.**



Our college has received the AICTE: Scheme for promoting interests, creativity, and ethics among the students i.e., SPICES grant under the coordination of Prof. Dr. S.R. Patil, Principal, Bharati Vidyapeeth's College of Engineering for Women, Pune and Dr. V. R. Pawar, Associate Professor, Electronics and Telecommunication Department.

The first session of workshop started with the welcome speech by student member, Ms. Tanushree Desai of TE E&TC. Prof. S. T. Khot, Training cell coordinator gave introduction of training cell followed by Dr. V. R. Pawar, who has given the information about SPICES grant. Then student member, Ms. Adya Pathak gave brief introduction of guest speaker, Mr. Ashish Jain. After this, Principal Prof. Dr. S. R. Patil addressed the audience. He gave Bharati Vidyapeeth's brief introduction, organization information, role of different cells in organization, importance of co-curricular activities along with academics.

Workshop started with a very beautiful interaction of speaker and students with the use of chat box. The session further followed by a brief on the self or one's desires, dreams, passions and motivations. The speaker interacted with students on each point, took inputs and gave the tips on how to increase their self-esteem, boost confidence and how one can excel in any area like coding, communication skill etc. Students were encouraged to be optimistic and have a positive approach about everything in life.

The next session of workshop was focused on discussion about some strategies of time management, goal setting, self-control, planning, execution, distraction overcoming and session about etiquette was very informative. Most importantly, it was emphasized that students should love themselves and never lose confidence in achieving goals. The speaker suggested new ideas on "how to overcome failure". It was well thought workshop of motivating students to discover themselves.

## Institute Level Activities

| Sr. No. | Date | Activity | Staff Coordinators | Organizing Cell/ Department |
|---|---|---|---|---|
| 1 | 29-10-2021 | Webinar on "Framework for technology driven Social Innovation" | Ms. A. D. Khairkar | Institution's Innovation Cell |
| 2 | 07-03-2022 | Webinar on "Design Thinking for Innovation" | | |
| 3 | 04-04-2022 | Webinar on "IPR Awareness Program" | | |
| 4 | 29-01-2022 | Webinar on "How to clear GATE exam in first attempt" | Mrs. V. D. Kulkarni | Career Guidance Cell |
| 5 | 19-03-2022 | Webinar on "Study Abroad for Engineers" | | |
| 6 | 23-04-2022 | Webinar on "How to prepare for competitive exams- UPSC/MPSC" | | |
| 7 | 31-01-2022 to 02-02-2022 | Workshop on "Electronic Skill Development" | Ms. K.R. Chaudhari | Department of Electronics & Telecommunication |

# Major Technical Activity

Department of Information Technology has organized a workshop on "Developing a chatbot using Natural Language Processing" by Mr. Yogesh Murumkar, Director and Corporate Trainer, Bharat Soft Solutions, Pune on 21st and 22nd March, 2022 for TE IT students.

The program started with a welcome speech and the introduction of the speaker by Dr. Ketaki Malgi, faculty coordinator of MOU activity. The session started with the introduction of Natural Language Processing and its implementation. The speaker then enlightened the students about importance and role of chatbot in various applications. He also demonstrated how to build chatbot using Dialogue flow and to establish great conversational experience for users with Big Query. Further he described real world chatbot applications and various projects based on it created by their team. Moreover, he talked about his YouTube channel related to Artificial Intelligence.

The session ended with Vote of Thanks by TE IT student Ms. Aditi Takalkar. The session was remarkably interesting and interactive. Students got satisfactory answers to all their questions. The conduction of this MOU Activity was a remarkable success.



# Industry-Institute Interaction

| Sr. No. | Date | Activity | Industry/ Company | Class |
|---------|------|----------|-------------------|-------|
| 1. | 10-02-2022 to 14-02-2022 and 16-02-2022 | Workshop on "Application Development using Python" | 9Ledge Pro | SE IT |
| 2. | 19-03-2022 | Workshop on "Software Development Life Cycle" | Accenture | SE IT |
| 3. | 22-03-2022 | Seminar on "Importance of Java Full stack" | Link-Code Technologies | SE IT |
| 4. | 05-04-2022 | Seminar on "Career and Placement Guidance" | KasNet Technologies Pvt. Ltd. | TE IT |

# Technical Activities



Workshop on "Funnel Marketing" by Ms. Ritika Kumari, Funnel Marketing Expert, Swaptechnobiz, Pune



Seminar on "Arduino for Beginners" by Mr. Atul Wadkar, Director, Algorithmic Electronics, Pune



Seminar on "Basics of Journal Paper Writing & Publishing" by Mr. Makarand Velankar, MKSSS's Cummins College of Engineering for Women, Pune



Seminar on "Applications of Data Structures" by Mr. Nagesh Mhetre, Clickin Computers, Pune



Webinar on "Game Theory for the Internet Age" by Dr. R. Ramanujam, Professor, Institute of Mathematical Sciences, Chennai

# Clash of the Titans: Monolith vs Microservices

The traditional way of creating a software application is to have multiple teams work on one code base that comprises of user interface, business logic and a data access layer which interacts with the database. This modelling style of building software is known as a monolithic architecture.
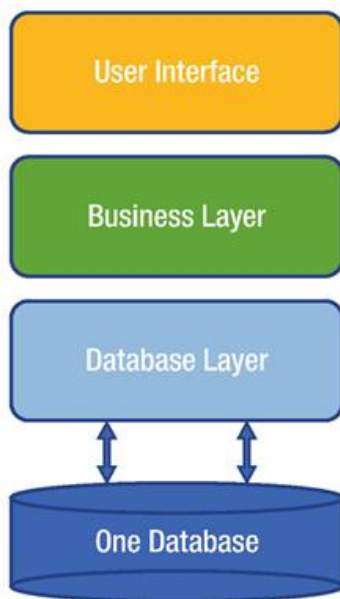


Fig.1 Monolithic Approach

The strength of this architecture is: applications are simple to build and easy to deploy. Additionally, single application enables faster bug fixing and easier management of core functionality like logging, caching, performance monitoring etc. This approach works well if your business idea is straightforward, and application has limited functionalities. It is also suitable for start-ups with tight budget and aiming to quickly launch an application to validate the business idea.

For the complex and evolving businesses, due to huge code base challenges are - keeping track of changes, adding new functionality to the tightly coupled application, longer deployment cycle, upgrading technology for a part of an application is almost impossible and scaling of an entire application is required as there are no components. It is important to note that there is an additional cost and lost opportunity involved while dealing with each of these challenges. This is where microservices or microservices architecture come into the picture.

In microservices architecture, an application is built as a collection of loosely coupled and independently deployable modules or services. Each service has a specific business function and typically, manages its own database. Services interact with each other through Application Programming Interfaces (APIs).
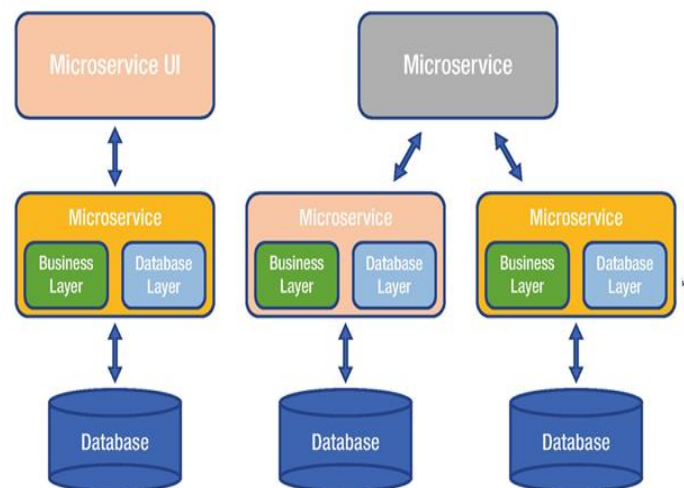


Fig.2 Microservices Approach

The most important strength of microservices is flexibility as each service can be independently updated, tested, and deployed. Thus, adding new functionalities or making any changes to the application is quicker in microservices architecture than monolithic architecture. Secondly, each service can have different technology stack which empowers building services using the most appropriate technology for its function. Microservices can be scaled cost-effectively using less infrastructure as individual components can be scaled, and load balanced instead of the entire application. Services are designed with high fault tolerance/isolation to ensure failure of one service doesn't result in an application failure. Usually, a service is managed by one team; however, one team can be responsible to manage one or more services. This way ownership is distributed, and multiple teams can work in parallel and independently.

Microservices flexibility comes at a cost of complex communication patterns between services. Keep in mind Microservices should be built only when tight coupling and scaling becomes a real pain for an application, also services should not be too micro. Each microservice should have CI/CD, logging, scaling, and monitoring mechanism in place. Some popular microservices design and communication patterns are:

**Backend-for-frontend (BFF) Pattern**: Separate backend services are created for specific front-end applications like Desktop Web UI, Mobile Application UI etc.

**Strangler Application Pattern**: This pattern is used to migrate monolithic applications to microservice.

**Service Discovery Pattern**: As service instances change dynamically in the cloud environment, this helps applications and services to locate each other.

**Saga Pattern**: This pattern is useful for transaction execution of a transaction that spans over multiple microservices.

Microservices architecture offers a superior way to build complex and evolving applications, manage huge datasets and to automate the deployments. Does this mean, every organization should switch to microservices just like Google, Amazon, and other tech companies? The answer is No – it is not one-size-fits-all. Before opting for microservices architecture, an organization must consider business complexity, culture, future scope, and budget.

Ms. Mayuri Gandhi
Ex-Sr. Business Analyst,
Mastercard, India
Santa Clara, California, US

(Alumna, Batch 2007-08)

# Achievements

## Staff



**Prof. Dr. Sandip Thite**

**Prof. Sandip Thite** has been awarded Ph.D. in Computer Science and Engineering by Bharati Vidyapeeth (Deemed to be University) on 27th April, 2022 for his research on "Design and Development of Security algorithm for Cyber Physical System to prevent Cyber-attacks".

## Student

**Khajure Manisha** from T.E.I.T. secured All India Rank 14885 with GATE Score 297 in GATE 2022 (CS/IT).

**Bankar Nikita, Bhalerao Sharwari, Bulbule Sanjivani, Divekar Samruddhi, Gaikwad Vrushali** and **Jadhav Namrata** from S.E.I.T. have been offered a scholarship of Rs.60,000/- each, by Lila Poonawalla Foundation.

**Bhosale Rutika** and **Chatur Rutuja** from S.E.I.T. have been offered a scholarship of Rs.55,000/- each, by Lila Poonawalla Foundation.

**Jadhav Shraddha** and **Pawar Sejal** from S.E.I.T. have been offered a scholarship of Rs.50,000/- each, by Lila Poonawalla Foundation.

**Mhaske Kirti** and **Pawar Jyoti** from S.E.I.T. have been offered a scholarship of Rs.45,000/- and Rs. 16052/- respectively by Lila Poonawalla Foundation.

**Pacharne Trupti** from S.E.I.T. has been offered Kiran's Scholarship of Rs.40,000 by Persistent Foundation Limited.


**Khajure Manisha**


**Bankar Nikita**


**Bhalerao Sharwari**


**Bulbule Sanjivani**


**Divekar Samruddhi**


**Gaikwad Vrushali**


**Jadhav Namrata**


**Bhosale Rutika**


**Chatur Rutuja**


**Jadhav Shraddha**


**Pawar Sejal**


**Mhaske Kirti**


**Pawar Jyoti**


**Pacharne Trupti**

# Achievements

**(Department of Engineering Sciences and Allied Engineering)**

**Staff**

➢ **Prof. Dr. Avinash M. Pawar**

Patent on "CATHODE TOOL -2", was granted on 28th January, 2022 by Government of India. Application No. and CRB No.-310841-22873.

➢ **Prof. Dr. Smita S. Jadhav**

Successfully completed Ph.D. on the title "Removal of Azo Dyes using Polyaniline and Substituted Polyaniline from Aqueous Solution", under the Guidance of Dr. Dipika Jaspal, Professor, Symbiosis Institute of Technology, Symbiosis International (Deemed University), Pune, Maharashtra.

**Student**

In A.Y. 2021-2022, 47 students from first year department have received Non –Government Scholarship.

| Sr. No. | Name of the Student | Name of the Scholarship | Scholarship Amount Received (Rs.) |
|---|---|---|---|
| 1 | Akkar Samiksha Santosh | Lila Poonawalla Foundation | 60,000/- |
| 2 | Batwal Shraddha Ramdas | Lila Poonawalla Foundation | 60,000/- |
| 3 | Firdos Mohd Haroon Maniyar | Lila Poonawalla Foundation | 60,000/- |
| 4 | Joshi Mansha Pravin | Lila Poonawalla Foundation | 60,000/- |
| 5 | Pawar Kirti Namdeo | Lila Poonawalla Foundation | 60,000/- |
| 6 | Shinde Snehal Siddanath | Lila Poonawalla Foundation | 60,000/- |
| 7 | Thorat Vaishnavi Mahendra | Lila Poonawalla Foundation | 60,000/- |
| 8 | Dharasurkar Disha Balasaheb | Lila Poonawalla Foundation | 59,500/- |
| 9 | Inamdar Sharvari Shrikrishna | Lila Poonawalla Foundation | 59,500/- |
| 10 | Konde Shravani Somnath | Lila Poonawalla Foundation | 59,500/- |
| 11 | Narkhede Yogeshwari Sudhakar | Lila Poonawalla Foundation | 59,500/- |
| 12 | Yeole Gayatri Valmik | Lila Poonawalla Foundation | 59,500/- |
| 13 | Chaudhari Shruti Ravindra | Lila Poonawalla Foundation | 55,000/- |
| 14 | Ghore Aishwarya Dilip | Lila Poonawalla Foundation | 55,000/- |

| 15 | Patil Vaishnavi Sandip | Lila Poonawalla Foundation | 55,000/- |
|----|------------------------|---------------------------|----------|
| 16 | Pokharkar Trupti Sunil | Lila Poonawalla Foundation | 55,000/- |
| 17 | Shaikh Alnaaz Murtaja | Lila Poonawalla Foundation | 55,000/- |
| 18 | Wagh Ananya Anand | Lila Poonawalla Foundation | 55,000/- |
| 19 | Deshmukh Gunjan Sanjay | Lila Poonawalla Foundation | 53,000/- |
| 20 | Kadam Shweta Shashikant | Lila Poonawalla Foundation | 53,000/- |
| 21 | Kadam Svarupa Ramdas | Lila Poonawalla Foundation | 53,000/- |
| 22 | Patil Isha Vijay | Lila Poonawalla Foundation | 53,000/- |
| 23 | Temgire Gayatri Maruti | Lila Poonawalla Foundation | 53,000/- |
| 24 | Nangare Apurva Rajendra | Lila Poonawalla Foundation | 50,000/- |
| 25 | Suryawanshi Pratiksha jitendra | Lila Poonawalla Foundation | 45,000/- |
| 26 | Bhosale Sanika hanmant | Lila Poonawalla Foundation | 45,000/- |
| 27 | Das Mayuri Kantilal | Lila Poonawalla Foundation | 45,000/- |
| 28 | Dhembare Pratiksha Bhaskar | Lila Poonawalla Foundation | 45,000/- |
| 29 | Ingale Sakshi Sadashiv | Lila Poonawalla Foundation | 45,000/- |
| 30 | Jagtap Aishwarya  Mashindra | Lila Poonawalla Foundation | 45,000/- |
| 31 | Jamdade Neha Subhash | Lila Poonawalla Foundation | 45,000/- |
| 32 | Karkande Rutuja Vinod | Lila Poonawalla Foundation | 45,000/- |
| 33 | Kunnure Siddeshri | Lila Poonawalla Foundation | 45,000/- |
| 34 | Mohite Anushka Sanjay | Lila Poonawalla Foundation | 45,000/- |
| 35 | Mohotkar Dnyaneshwari Sunil | Lila Poonawalla Foundation | 45,000/- |
| 36 | Nigade Chaitali Rajesh | Lila Poonawalla Foundation | 45,000/- |
| 37 | Patil Pallavi Bhimrao | Lila Poonawalla Foundation | 45,000/- |
| 38 | Salekar Laxmi Rohidas | Lila Poonawalla Foundation | 45,000/- |
| 39 | Sarode Janavi  Umesh | Lila Poonawalla Foundation | 45,000/- |
| 40 | Shinde Priti Anandrao | Lila Poonawalla Foundation | 45,000/- |
| 41 | Shitole Samruddhi Bhaskar | Lila Poonawalla Foundation | 45,000/- |
| 42 | Takalkar Arpita Sanjay | Lila Poonawalla Foundation | 45,000/- |
| 43 | Pudale Manasvi Dilip | Lila Poonawalla Foundation | 40,000/- |
| 44 | Firke Sanika Sandip | Lila Poonawalla Foundation | 30,000/- |
| 45 | Kakade Vedanti Khushalrao | Lila Poonawalla Foundation | 30,000/- |
| 46 | Patil Prayuja Shahaji | Lila Poonawalla Foundation | 30,000/- |
| 47 | Jagtap Aishwarya  Mashindra | Persistent's Kiran Girls Scholarship | 40,000/- |

## Placements from January 2022 to May 2022

| SR. NO. | NAME | COMPANY | SR. NO. | NAME | COMPANY |
|---|---|---|---|---|---|
| 1. | Vora Yutika | Alight | 16. | More Aishwarya | L&T Services |
| 2. | Dahiphalkar Apurva | Capgemini | 17. | Pandhare Neha | L&T Services |
| 3. | Dhasade Priyanka | Capgemini | 18. | Kolhe Divyangi | Msys Technologies |
| 4. | Kaladeep Prachi | Capgemini | 19. | Koyale Shradha | Msys Technologies |
| 5. | Ogale Chaitrali | Capgemini | 20. | Nikam Utkarsha | Msys Technologies |
| 6. | Sawant Rohoni | Capgemini | 21. | Dhebe Deepali | Vodafone Vois |
| 7. | Bavkar Bhagyashri | Cognizant | 22. | Dhokte Priti | Vodafone Vois |
| 8. | Deshmukh Sanyukta | Cognizant | 23. | Garge Harshita | Vodafone Vois |
| 9. | Patil Trushna | Cognizant | 24. | More Tulasi | Vodafone Vois |
| 10. | Phatale Vrushali | Cognizant | 25. | Ogale Chaitrali | Vodafone Vois |
| 11. | Joshi Sanchita | e-Zest | 26. | Hinge Netra | Wipro |
| 12. | Dhebe Deepali | Icon | 27. | Joshi Sanchita | Wipro |
| 13. | Garge Harshita | Infosys | 28. | Pawar Kajol | Wipro |
| 14. | Dahiphalkar Apurva | L&T Services | 29. | Shipankar Swapnali | Wipro |
| 15. | Dhamale Sanskruti | L&T Services | 30. | Shitole Sanuja | Zensar |

## Our Esteemed Recruiters

# Editorial Board

*Prof. Dr. S. R. Patil*
*Principal, BVCOEW*

*Prof. Dr. D. A. Godse*
*Newsletter Coordinator and H.O.D. I.T.*

*Mrs. S. B. Dhuttargi*
*Chief Editor(IT)*

*Ms. N. A. Mulla*
*Editor(IT)*

*Mrs. N. N. Chavan*
*F.E. Staff*

*Mrs. D. P. Chopade*
*F.E. Staff*

*Vrushali Phatale*
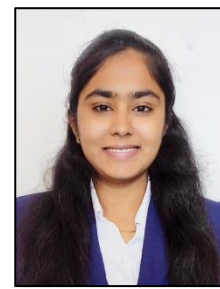*(B.E. I.T.)*

*Mandira Rai*
*(T.E. I.T.)*

*Shruti Lad*
*(S.E. I.T.)*

*Sumat Goud*
*(B.E. I.T.)*

*Sonakshi Shende*
*(T.E. I.T.)*

*Rutuja Chatur*
*(S.E. I.T.)*