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SYNAPSE 2025 EVENT REPORT

(AY2025-2026)

Name of the Event : State Level Project Expo-Synapse 2025

Date & Time : 05/12/2025 (9am to 5pm)

Place : ACSCE Auditorium

Chief Guest : Shri.Lokesh B S

Founder, Agastya Academy

No of Student Participants : 143 (7th Sem) + 148 (5th Sem) = 291 Students

Event SPOC : Dr.G.Ramanan, HOD-AE



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Organized by:

Departments of

- Aeronautical Engineering (AE)
- Aerospace Engineering (ASE)
- Biomedical Engineering (BME)
- Electronics & Communication Engineering (ECE)
- Mechanical Engineering (ME)
- Computer Science & Engineering (CSE)
- CSE Internet of Things (IoT)
- CSE Cyber Security (CY)
- CSE Data Science (DS)

In Association With:

- Institution's Innovation Council (IIC)
- Aeronautical Society of India (AeSI)
- IEEE Bangalore Section
- IEEE Engineering in Medicine & Biology Society (EMBS)
- Aeronautical Skill Sector Council (ASSC)



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Patrons and Organizing Team

• Chief Patron:

Dr. A. C. Shanmugam Founder Chairman, RajaRajeswari Group of Institutions

• Co-Patron:

Sri. A. C. S. Arun Kumar President, RajaRajeswari Group of Institutions

• Chief Guest & Dignitaries:

Dr. A. K. Mariappan, Rector, RRGI Dr. S. Meenakshi Sundaram, Registrar, RRGI

• Principal:

Dr. B. S. Shylaja, Principal, ACS College of Engineering

• Convener:

Dr. G. Ramanan, Professor & HOD - Aeronautical Engineering

Objective of the Event

The primary objective of **SYNAPSE 2025** was to provide a common platform for students to showcase their innovative project ideas, promote interdisciplinary learning, encourage problem-solving skills, and foster a culture of research, innovation, and entrepreneurship among budding engineers. The event aimed to bridge the gap between theoretical knowledge and real-world applications by promoting hands-on project development.

Inaugural Session

The program was started at 09.00 AM with the welcome speech by Dr.G.Ramanan, HOD-AE and followed by the facilitation by the students. Presidential address was given by Dr.Shylaja B S, Principal, ACSCE. Special address was given by Prof.Soma, Professor of Aeronautical Engineering. The dignitaries emphasized the importance of innovation-driven education and highlighted the role of project-based learning in developing industry-ready engineers. On behalf of the management Dr.S.Meenakshi Sundaran, Registrar, RRGI addressed the gathering and motivated the students. The Chief Guest Shri Lokesh B S addressed the gathering on emerging technological trends and motivated students to pursue research and innovation beyond the classroom.

Project Expo Highlights

- A large number of **student project teams** from various engineering disciplines participated in the expo.
- Projects were displayed in dedicated stalls arranged department-wise.
- The exhibits covered a wide range of domains including:
 - Aerospace and Aeronautical Systems
 - o Smart and Sustainable Engineering Solutions

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- o Biomedical Devices and Healthcare Technologies
- o IoT-based Smart Systems
- o Artificial Intelligence and Data Science Applications
- Cyber Security Solutions
- o Automation and Mechanical Design Innovations
- o Embedded Systems and Communication Technologies

Evaluation and Judging

- The projects were evaluated by eminent academicians, industry experts, and research professionals.
- The judging criteria included:
 - o Innovation and originality
 - o Technical depth
 - Practical applicability
 - Social relevance
 - Presentation and demonstration skills
- The jury interacted extensively with the participants, offering valuable feedback and suggestions for further improvement.

Student Participation and Learning Outcomes

- The event witnessed active participation from students across Karnataka, making it a true State Level Project Expo.
- Students gained exposure to:
 - o Interdisciplinary collaboration
 - o Real-time problem-solving approaches
 - o Professional project presentation skills
 - o Research orientation and innovation mindset
- The expo encouraged peer learning and knowledge sharing among participants.

Valedictory Session

The event concluded with a valedictory session where the best projects were recognized and appreciated. Certificates were distributed to participants and winners. The organizing committee expressed gratitude to all dignitaries, judges, faculty coordinators, student volunteers, and supporting organizations for the successful execution of the event. The vote of thanks was proposed by Prof.Omkar Pandey, event coordinator, AS department.

Outcome of the Event

- Enhanced innovation culture among students
- Strengthened industry-academia interaction
- Improved technical and presentation skills

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- Encouraged students to pursue research, startups, and higher studies
- Successful collaboration between multiple departments and professional bodies

Conclusion

SYNAPSE 2025 – State Level Project Expo was a grand success and served as an effective platform for nurturing creativity, innovation, and technical excellence among engineering students. The event truly lived up to its theme, "Connecting Mind & Technology", by inspiring young minds to transform ideas into impactful engineering solutions.

Event Certificate





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Event Pictures





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Event Coordinators

Dr.G.Ramanan Convenor-Synapse 2025 PRINCIPAL ACS COLLEGE OF ENGINEERING Kambipura, Mysore Road, Kengeri Hobli Bangalore-568074

Dr.B.S.Shylaja

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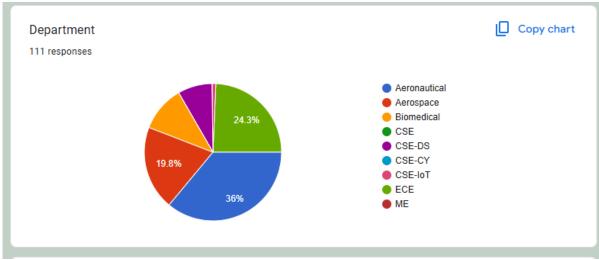
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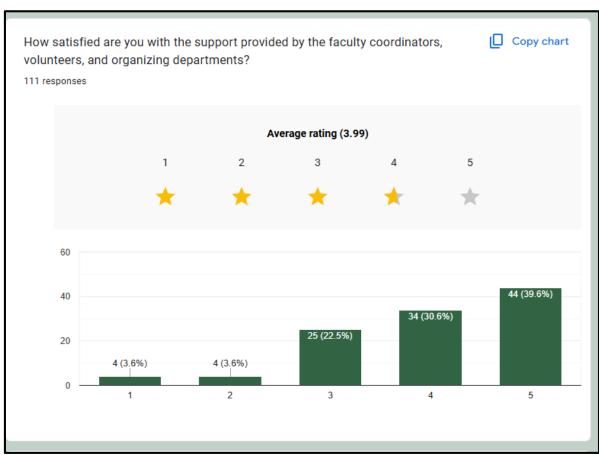






Synapse 2025: Project Expo-Feedback summary







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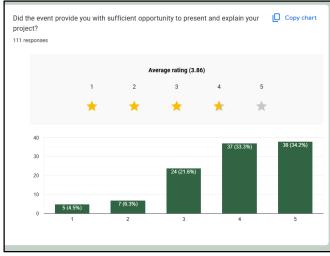
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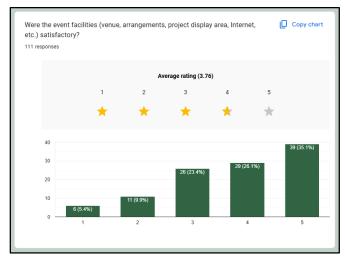














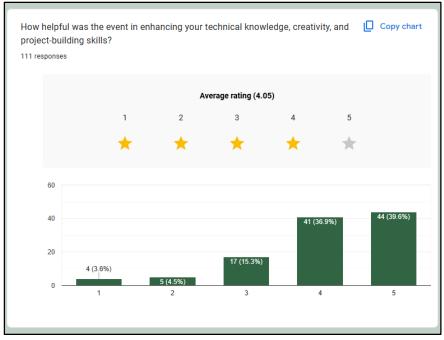
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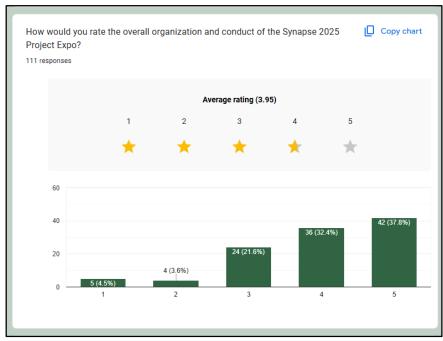
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SYNAPSE 2025 - PROJECT EXPO WINNERS LIST

DEPARTMENT OF AERONAUTICAL ENGINEERING

Semester: 7

| SL NO | NAME OF THE | USN | TITLE | Guide Name |
|-------|--|--|--|------------------------------|
| 01 | STUDENTS SANJANA R CHOUHAN BILVASHREE NESARA S SHETTY | 1AH22AE037 1AH22AE007 1AH22AE026 | Mechanical characterization of flyash and e glass fibre reinforced aluminium composite | Prof.Albert Allen D Mello |
| 02 | ADARSH C CHETHAN R SAGAR M G RISHI KUMAR | 1AH22AE002 1AH22AE010 1AH22AE035 1AH22AE014 | Design and Analysis of Axial Flow Compressor With Different Blade Profile And Inlet Fan | Dr.Dhanya Prakash R Babu |

| SL NO | NAME OF THE STUDENTS | USN | TITLE | Guide Name |
|-------|--|--|--|------------------------------|
| 01 | HARSHITHAP M KARISHMA S LEKHANA R VANISHREE | 1AH23AE019 1AH23AE022 1AH23AE026 1AH23AE058 | "Thermal Conductivity Test Setup For Composite Materials for (0°to 100°t)" | Prof.Albert Allen D Mello |
| 02 | NEHA N SAHANA M S SHRUTHI | 1AH23AE034 1AH23AE042 1AH23AE046 | Design and fabrication of foldable wings | Prof. GANESH R |



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DEPARTMENT OF AEROSPACE ENGINEERING

Semester: 7

| SL NO | NAME OF THE STUDENTS | USN | TITLE | Guide Name |
|-------|--|--|--|--------------|
| 01 | POORNIMA A RAHAN S R SIDHARTH ARYA P UDAY K N | 1AH22AS009 1AH22AS012 1AH22AS015 1AH22AS020 | Design and Development of Ion Thrusters | Dr.C.Suresh |
| 02 | CHIRAG K A TNANESH P RAGHVRAMA SHARMA G V | 1AH22AS007 1AH22AS008 1AH22AS019 | Design and Development of Hovercraft for Mars Applications | Prof.M.Vijay |

Semester: 5

| SL NO | NAME OF THE | USN | TITLE | Guide Name |
|-------|--------------------|------------|--------------------------|-------------------|
| | STUDENTS | | | |
| | SAYEED UR RAHMAN | 1AH23AS038 | Comparative analysis of | |
| 01 | SUMIT GHOSH | 1AH23AS049 | PID and LQR control | Prof.Omkar Pandey |
| | YASHAS B L | 1AH23AS054 | algorithms for a cubesat | |
| | AVENI R KUMAR | 1AH23AS010 | Study of fracture | |
| | KIRAN KUMAR BEHERA | 1AH23AS025 | toughness of additively | |
| 02 | NAINA R SHETTY | | manufactured | Prof.Vijay M |
| | SHASHAK R | 1AH23AS030 | component in the | |
| | SHASHAK K | 1AH23AS041 | temperature range | |

DEPARTMENT OF ECE

| SL NO | NAME OF THE STUDENTS | USN | TITLE | Guide Name |
|-------|----------------------|------------|-------------------------|-------------------------|
| | | | | |
| 01 | CHIRAG J K | 1AH22EC007 | 32-BIT ENERGY EFFICIENT | |
| | HEMANTH C B | 1AH22EC016 | ALU WITH SPEED | Dr. S M Vijaya |
| | NANDEESH B S | 1AH22EC029 | CONSIDERATION | Di. 3 ivi vijaya |
| | UTKARSH KUMAR JHA | 1AH22EC060 | CONSIDERATION | |
| 02 | DEEKSHA RAJGOPAL | 1AH22EC009 | GPS BASED TICKETING | |
| | JEEVAN H GOWDA | 1AH22EC017 | SYSTEM WITH REAL TIME | Mrs.Aishwarya L K |
| | МОНІТН К | 1AH22EC026 | SMS UPDATES | IVII S. AISIIWAI YA L K |
| | NAGAVENI H | 1AH22EC027 | SIVIS UPDATES | |



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Semester: 5

| SL NO | NAME OF THE STUDENTS | USN | TITLE | Guide Name |
|-------|---|--|---|-------------------------|
| 01 | DARSHAN U B DHYAN K PUNEETH B R ARVIND SIDDHARTH | 1AH23EC011 1AH23EC012 1AH23EC038 1AH23EC039 | Auto power supply system using four different power sources | Prof.Susmitha B C |
| 02 | BHUMIKA Y CHAITHRA SANJANA K S G MOULYA HARISHITHA N | AH23EC007 1AH23EC008 1AH23EC014 1AH23EC016 | Development of iot and gps based smart blind stick | Prof.Chandrakala G S |

DEPARTMENT OF CSE

Semester: 7

| SL NO | NAME OF THE | USN | TITLE | Guide Name |
|-------|---------------------|------------|----------------------------|---------------------|
| | STUDENTS | | | |
| 01 | SURAJ KUMAR RAWAL D | 1AH22CS171 | | |
| | TEJASWI S R | | | |
| | VINAYAKA K N | 1AH22CS177 | Biotloc Fish Farming | Prof.LAKSHMIPRIYA P |
| | YOGARAJ C | 1AH22CS189 | | |
| | | 1AH22CS193 | | |
| 02 | MEGHANA M | 1AH22CS098 | | |
| | RAKSHA K R NAIK | 1AH22CS135 | LLM Based Interactive Code | Prof.ARCHANAN G |
| | RASHMI M | 1AH22CS141 | Generation | FIUI.ANCHANAN G |
| | TANISHQ T M | 1AH22CS174 | | |

| SL NO | NAME OF THE | USN | TITLE | Guide Name |
|-------|---------------|-------------|--------------------------|----------------|
| | STUDENTS | | | |
| | SOWNDARYA M C | 1AH23CS154 | | |
| 01 | SWATI S HERUR | 1AH23CS 160 | Smart Shop with Smart | Prof. Lakshmi |
| 01 | THANUSHREE R | 1AH23CS164 | Trolley | Priya P |
| | YOGAPRIYA N N | 1AH23CS188 | | |
| | | | | |
| 00 | SANIKA D R | 1AH23CS130 | AI Based Interior Design | Prof. Muhammed |
| 02 | SHALINI B | 1AH23CS136 | Application | Owais |
| | | | | |



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DEPARTMENT OF BME

Semester: 7

| SL NO | NAME OF THE | USN | TITLE | Guide Name |
|-------|---------------------|------------|-------------------------|------------------------|
| | STUDENTS | | | |
| 01 | PRAVEEN KUMAR REDDY | 1AH22BM014 | NEUROFLEX: A REAL-TIME, | |
| | GOPIKA PANCHAL | | WEARABLE NEURO- | Prof. Nagashree |
| | LEKHANA K | 1AH22BM007 | MUSCULAR REHABILITATION | Pavan |
| | YASHIKA MOHAN | 1AH22BM008 | SYSTEM USING SOFT | Favaii |
| | | 1AH22BM022 | ROBOTICS | |
| 02 | PAVAN M R | 1AH22BM012 | Smart RPPG and Optical- | |
| | PRANAV HOYSALA | 1AH22BM013 | Flow Based Remote Vital | Dr. P Bhuvaneshwari |
| | VARSHHITHA S Y | 1AH22BM021 | | DI. P DIIUVallesiiwali |
| | NANDINI R | 1AH22BM009 | Signs Monitoring System | |

Semester: 5

| SL NO | NAME OF THE STUDENTS | USN | TITLE | Guide Name |
|-------|--|--|--|------------------|
| 01 | CHAITRA GUBBI NANDIKA B U VIDYA HEGDE | 1AH23BM005 1AH23BM018 1AH23BM027 | Pill-Pal : The smart medication companion | Prof. Sowmya C G |
| 02 | JEEVAN R KEVIN RUFUS KUMAR M L TARUN RAJ | 1AH23BM009 1AH23BM010 1AH23BM013 | IoT Enabled Fitness monitoring device | Prof. K Ramkumar |

DEPARTMENT OF ME

| SL NO | NAME OF THE STUDENTS | USN | TITLE | Guide Name |
|-------|-------------------------|--------------------------|--|------------------|
| 01 | NIKHIL DAS S TEJAS V | 1AH23ME001 1AH23ME002 | Production of Ultra Fine Structure by using Aluminum Alloy Processed by Cyclic Constraint Groove Pressing. | Dr. Siddesha H S |



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DEPARTMENT OF CSE-IOT

Semester: 5

| SL NO | NAME OF THE STUDENTS | USN | TITLE | Guide Name |
|-------|-------------------------|--------------------------|--|-----------------|
| | ANANYA H G | 1AH23CO011 | NA/inclose noticet require | |
| 01 | KEERTHANA S DISHA M | 1AH23CO013 1AH23CO018 | Wireless patient monitoring system using arduino uno | Prof.S.Varshini |
| | SUKRUTHI S | 1AH23CO032 | | |
| | ANKITHA R | 1AH23CO004 | IOT based radar | |
| 02 | MONISH M | 1AH23CO022 | communication system using | Prof.Supriya.R |
| | PRAJWAL C | 1AH23CO025 | arduino uno | |
| | SYED SUFIYAN | 1AH23CO036 | arddino dno | |

DEPARTMENT OF CYBER SECURITY

Semester: 7

| SL NO | NAME OF THE STUDENTS | USN | TITLE | Guide Name |
|-------|--|--|---|------------------|
| 01 | GUNAVATHI C HARSHITHA N VEENA A H | 1AH22CY016 1AH22CY019 1AH22CY060 | Secure E-Wallet using Block chain | K.P.Sangeetha |
| 02 | MADUSUDHAN REDDY SHASHANK V YATISH S | 1AH22CY027 1AH22CY046 1AH22CY063 | Hybrid Zero Trust Architecture for Web application. | Dr.M.Karuppasamy |

Semester: 5

| SL NO | NAME OF THE STUDENTS | USN | TITLE | Guide Name |
|-------|-------------------------|------------|------------------------|--------------------|
| | SIUDENIS | | | |
| 01 | AKASH & TEAM | 1AH23CY004 | Acoustic Cyber Defence | Mrs. K P Sangeetha |
| | | 1AH23CY025 | | |
| | | 1AH23CY041 | | |
| | | 1AH23CY058 | | |
| 02 | | 1AH23CY007 | | |
| | PRAKRUTHI &TEAM | 1AH23CY038 | Mini honeypot | Mrs. K P Sangeetha |
| | | 1AH23CY042 | | |

Event Coordinators

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Dr.B.S.Shylaja

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