INTELLECT

Computer Science and Engineering (AI & ML)

St. Martin's Engineering College

An Autonomous Institute
NBA & NAAC A+ Accredited
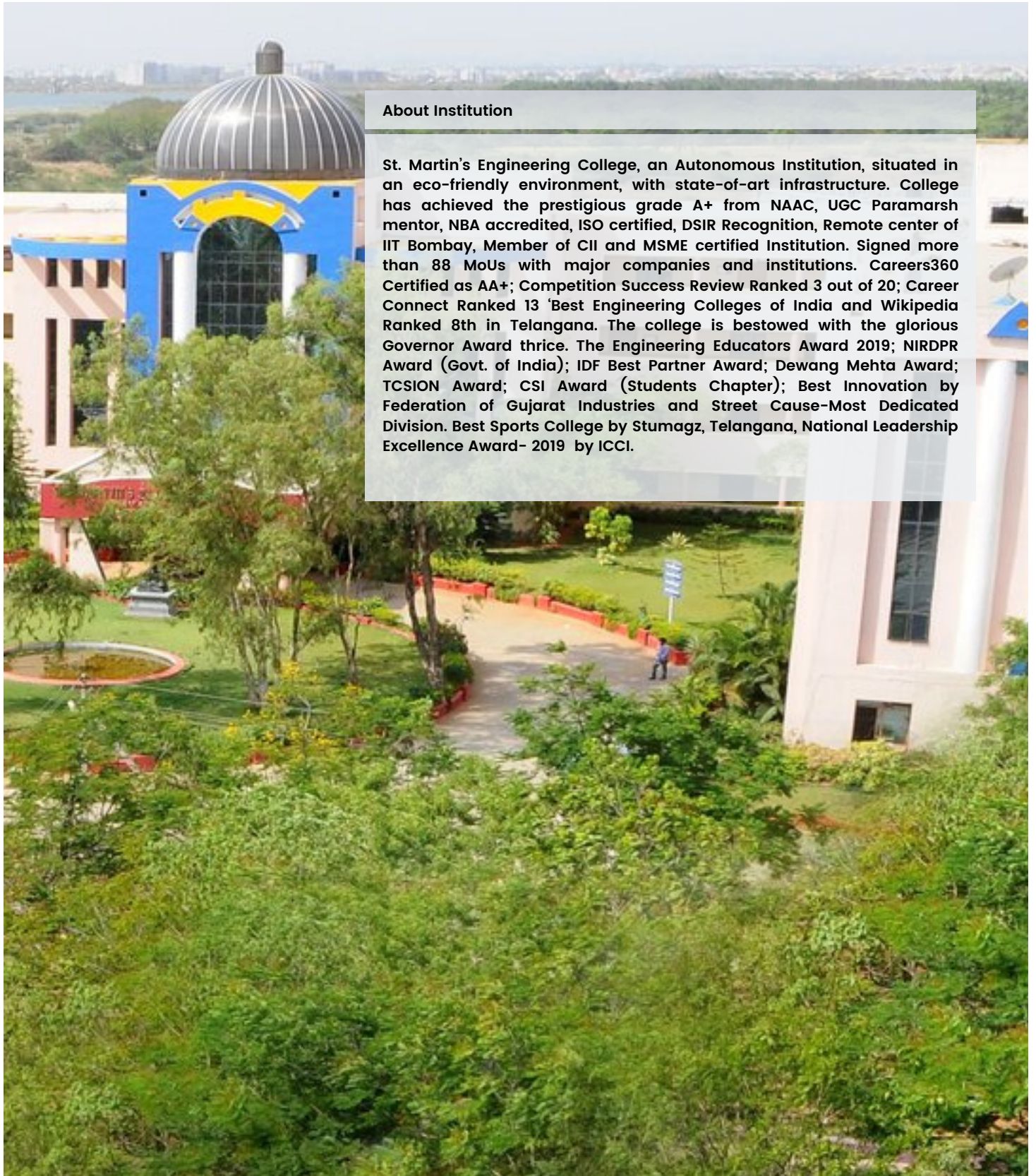Dhulapally, Secunderabad - 500100

ST. MARTIN'S ENGINEERING COLLEGE
SMEC
TECHNOLOGY FOR PROSPERITY

UGC AUTONOMOUS

<u>Contents</u>

About Institution

St. Martin's Engineering College, an Autonomous Institution, situated in an eco-friendly environment, with state-of-art infrastructure. College has achieved the prestigious grade A+ from NAAC, UGC Paramarsh mentor, NBA accredited, ISO certified, DSIR Recognition, Remote center of IIT Bombay, Member of CII and MSME certified Institution. Signed more than 88 MoUs with major companies and institutions. Careers360 Certified as AA+; Competition Success Review Ranked 3 out of 20; Career Connect Ranked 13 'Best Engineering Colleges of India and Wikipedia Ranked 8th in Telangana. The college is bestowed with the glorious Governor Award thrice. The Engineering Educators Award 2019; NIRDPR Award (Govt. of India); IDF Best Partner Award; Dewang Mehta Award; TCSION Award; CSI Award (Students Chapter); Best Innovation by Federation of Gujarat Industries and Street Cause-Most Dedicated Division. Best Sports College by Stumagz, Telangana, National Leadership Excellence Award- 2019 by ICCI.

About Department

Department of Computer Science and Engineering (AI & ML) was established in the year 2020 with an intake of 60. The Department has well equipped laboratories with latest configuration systems and updated licensed software were installed.

Student's chapters of professional societies like TAM, CSI, & ISTE, which aim at tapping the inner abilities and showcase their talents. Various social services through NSS, CLUBS, and ISR for holistic development of our students.

We encourage student to improve Self-Learning skills, by providing round the clock on-line Resources from various sources like NPTEL, MOOCS, SWAYAM, OPAC, IEEE, SPRINGER, J-GATE etc., Students will be benefited to update their skills and they become a Global leader with latest technologies.

The department has collaboration with various industries offering credit courses, conducting workshops & faculty development programs, offering internships, projects and placements etc. Students are sent on industrial visits to companies and they also undergo in-plant training at top level industries as well. Students are eligible to obtain successful placements at leading companies like Infosys, Wipro, Cognizant, TCS, IBM, Microsoft, Oracle, Tech Mahendra etc.

Message from Principal

DR.P.SANTOSHKUMAR PATRA

The essence of learning lies in pursuing the truth, St. Martin's Engineering College firmly believes that education is way to success. It is a matter of great pride and honor that the news Letter 'INTELLECT' released by the Department of Computer Science and Engineering (AI & ML). The Department of CSE (AI & ML) was established in the year 2020 and organized various events such as Guest lecture, Webinar and Industrial visits. The faculty members and students published many research papers in various National and International journals including UGC Care, Scopus and SCI. I wish the faculty members and students for their significant achievement and commitment. I appreciate the sincere efforts of Dr. K.SRINIVAS, HOD of CSE (AI & ML) to guide and bring out the talent of the faculty members and students. I congratulate the editorial board of this news letter who have played wonderful role in accomplishing the task in stipulated time. My heartfelt congratulations to all the faculty members and students of Department of CSE(AI & ML) for their fruitful effort and contribution. All the youth must be visionary and cautious of their deeds. Strive hard as there is no shortcut for success. Lead your career with your smart work rather than hard work. I wish all the best for the Academic, Research and Developmental activities in the Department to achieve greater heights.
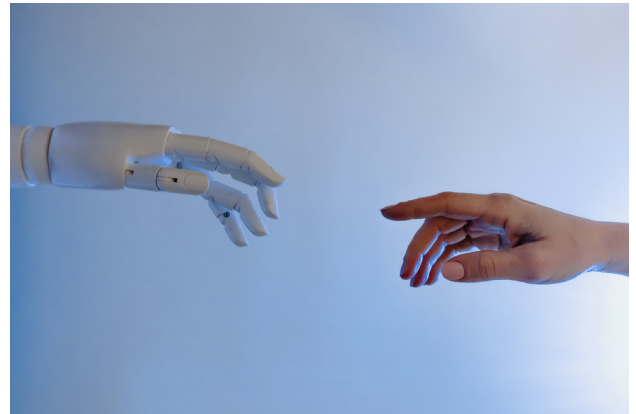
Message from Head of the Department

DR.K.SRINIVAS

It gives me great pleasure to share the technical newsletter of our Department. 'INTELLECT' This newsletter is a nice blend of achievements of students and faculty. It is a great pride to be part of the team which strives to bring out the talents of the students and staff. I wish to record my hearty congratulations to those who have brought laurels to the department, appreciate all of you for working together as a team. I am confident that this newsletter consists of informative articles and new concepts will be appealing and valuable to the readers. Reading this technical Newsletter will undoubtedly inspire and motivate all students and faculty to contribute even more to future issues. I thank our Principal Sir for encouraging and motivating us to organize various events, publishing articles in journals, conferences, patents and writing books. I am delighted to congratulate the editorial team for their efforts in publishing this Newsletter. I take this opportunity to express my sincere thanks to all the members of the faculty and students of CSE(AI & ML) Department for their sincere involvement and contribution. I extend best wishes for the success of this endeavor.

Department Vision

To become a centre of excellence in the field of Artificial Intelligence and Machine Learning and producing globally competent professionals, innovators and entrepreneurs and thereby contribute value to the society.

Department Mission

- To create an environment where students excel in their creative talents and achieve excellence in all the activities.
- To develop an innovative, competent and Ethical Engineers with strong foundations to enable them for lifelong learning.
- To empower the students to solve real world problems with basic engineering and research-based knowledge by incorporating moral values.

Artificial Intelligence & Machine Learning

One of our big goals in search is to make search that really understands exactly what you want, understands everything in the world. As computer scientists, we call that artificial intelligence

–Larry Page
Google Co-founder
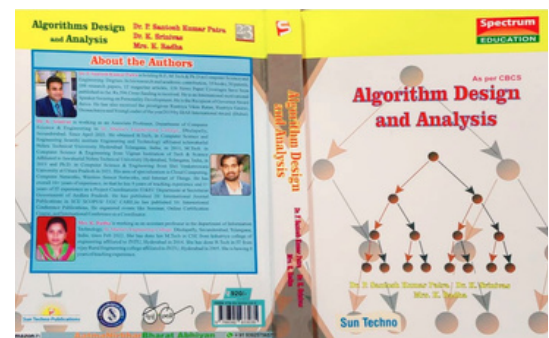
Department Board and Recognitions

Acheivements

- **Dr. K. Srinivas** had been certified for IP awareness/training program under National Intellectual Property Awareness Mission on September 21, 2022.

- **Dr. K. Srinivas** received the certificate for participation in one week Faculty Development Programme on "Taking Research to Next level" from 26th to 30th September 2022.

Book Publications

- **Dr. K. Srinivas** Published a Book titled "Algorithm Design and Analysis" in the academic year 2021-2022.

- **Mr. D. Venkatesan** Published a Book Chapter "The Internet of Thing(IoT) in Healthcare: A Review of Enabling Technologies, Standards Protocols, security, and Market opportunities", ISBN:978-81-956262-8-1, edition 1, April 2022.

Patents

- **Dr. K. Srinivas** published a patent titles "Division and Replication of Data for Optimal Performance and Security in Cloud" Application No.202241062175, Publication Date: 11/11/2022

- **Mr. D. Venkatesan** published a patent titled "IoT With Artificial Intelligence Based Decentralized Authentication Modelling Scheme In Edge Using Block Chain Techniques" Application No. 202211022588 A, Publication Date: 22/04/2022.

Students Achievements

Inter College Sports Competition

- **Winners at Ashwatthama-Indian open Engineering inter collegiate Sports Fest-2021 (snist, ghatkesar) on 6/12/21-8/12/21.**
  – E. Anmol & T. Sareen.

- **Winners at Phoenix-9th national level inter engineering collegiate Sports Fest held at Vidya Jyothi Institute of Technology, Aziznagar on 12/5/22-13/5/22.**
  – T. Sareen.

- **Winners at 13th Indian open inter engineering collegiate Sports Fest-22 held at VNR VJIT, Nizampet on 1/6/22-2/6/22.**
  – T. Sareen.

Annual Sports Competition

- **Won the Throwball competition in the college during the year 2022.**
  – B. Anokhi, S. Rama Rajeshwari.

- **Won the Badminton competition in the college during the year 2022.**
  – G. Akshitha.

- **Won Silver medal in Table Tennis and Carrom competition during the year 2022.**
  – B. Sathvik.

- **Runner up in the Cricket Sport held during the year 2022.**
  – B. Sathvik, N. Avinash Reddy, G. Deeraj, Ch. Abhishek, S. Madhu Praveen.

Student Innovations

Built a project on Machine Learning - International cost of living analysis. Analysis the various countries data and their Geographical statistics and predicts the best out of it. Suggesting the best places to live on based on quality and living cost by the user specifications and relevant information.

Bashetti Pavan Kumar (III Year)

Built a price comparison website which is a shopping comparison agent, aggregator or comparison shopping engine, is a vertical search engine that shoppers use to filter and compare products based on price, features, reviews and other criteria. .The project plays huge role in the expansion of the current E-commerce industry

B Tanusri, B vaidevi, Bhargav, Bhushan Vyas (II Year)

Built a project on machine learning using linear regression algorithm, The model predicts the salary of an employee based on the experience and other relevant data. Created my own module that will predict the future value based on previous data by using matplotlib to plot the graph for visualization.

Naredla Sai Venkat Prasad (II Year)

Academic Achievements

🎓 III Year

- B. Pavan Kumar secured Rank 1 in the Academic year (2021-2022).

- V. Yuvaraj Nani secured Rank 1 in the Academic year (2021-2022).

- B. Aishwarya secured Rank 2 in the Academic year (2021-2022).

- A. Angel Mary Poulina secured Rank 3 in the Academic year (2021-2022).

- M. Sanjana secured Rank 3 in the Academic year (2021-2022).

🎓 II Year

- Y. Vaishnavi secured Rank 1 in the Academic year (2021-2022).

- A. Gahana secured Rank 2 in the Academic year (2021-2022).

- B. Akhila secured Rank 2 in the Academic year (2021-2022).

- T. Bindhu sree secured Rank 3 in the Academic year (2021-2022)

.- C. Rajarchitha secured Rank 3 in the Academic year (2021-2022)

.- M. Aditya secured Rank 3 in the Academic year (2021-2022)

.- N. V. Prasad secured Rank 3 in the Academic year (2021-2022)

Events

Guest Lecture

The Department of Computer Science and Engineering (AI & ML) has organized a Guest Lecture on "Machine Learning in Healthcare" on 22.09. 2022.This session was conducted by Aggadi Gnanesh, shared his views on basics of Machine Learning and how it is essential in healthcare sector with examples. He illustrated the process of Machine Learning to analyze medical records and disease forecasts. He discussed about Exploratory data analysis ,train model on data, analysis, evaluation and efficient use of ML algorithms and applications in the healthcare sector. He demonstrated the Machine Learning model for breast cancer detection using Google Collab. Further he has discussed about the applications, techniques, opportunities, and challenges in the healthcare sector. All the participants responded the session with great interest

Webinar

This session was conducted by Dr. G. Ramesh Chandra, shared his views on basics of 3D Deep Learning and how it is essential in healthcare sector with examples. He discussed the process of 3D data representations, computer vision tasks and learning resources in health care. He illustrated about working of Deep Neural networks .He demonstrate the 3D Deep Learning model using lidar . Further he has discussed about the activation function, Image processing and the over-fitting problem and solutions. This is a great session which provides the right path and guidelines for understating of 3D Deep Learning for the layman perspective. All the participants responded the session with great interest.

Events

Independence Day

After almost 200 years of British oppression and countless freedom struggles, along with boundless sacrifices, our country had broken free from the shackles of British rule and finally became an independent nation on 15th Aug 1947. 75 years later, now we stand here as the representation of such wondrous era's result. On such patriotic occasion our country celebrated Azadi Ka Amrit Mahotsav marking 75 years of independence. We at SMEC have celebrated such joyous occasion at our campus with our heads held high and hearts filled with patriotism for our nation.

Teachers Day

In an era where knowledge is practically running the world on its finger tips, teachers are an eternal resource of information . We live in an evolving world which is in a constant race for acquiring knowledge. In such world knowledge has an open resource which can be acquired from anywhere but no matter the amount of knowledge we get from the internet or any other source nothing can replace a teacher's experience and their efforts deserve to be commended. We at SMEC have hosted teachers day celebrations to commemorate their hard work and determination in providing knowledge.

Events

Engineers Day

In India, Engineer's Day is celebrated on September 15 every year. The day is celebrated to recognize the contribution of engineers in the development of the nation. This day commemorates the birth anniversary of Sir Moksha Gundam Visvesvaraya, who is considered one of the greatest engineers of India. Joining India, Sri Lanka and Tanzania also celebrate Engineers Day on September 15, 2022, in honor of Sir Moksha Gundam Visvesvaraya. We at SMEC have also celebrated Engineer's day to honor every engineer's work and efforts in developing the society.

Sports Day

In a time where physical fitness and sports are neglected with the façade of gaining knowledge there lie some gems who are not afraid to tread the play arena and test their courage in play field. We at SMEC have conducted Sports Day to celebrate their victories and award them for their efforts. Us CSE(AI&ML) students have also taken part in the sports events and have won some remarkable matches as well.

Orientation Day

Orientation Day 2022 for B.Tech first year students at St.Martin's Engineering College was conducted in a very grand manner. The program was attended by the Chairman, Sri Marri Laxman Reddy Garu, Executive Director Sri G.Chandra Shekhar Yadav Garu, Director Sri G. Jaikisan Yadav Garu, Principal, Dr.P.Santosh Kumar Patra, faculty,students and parents. Chief Guest for the program was Sri Ch.Malla Reddy Garu, the Minister of Labour, Employment, Women and Child Development, Telangana.

The program was started with the video, which described about St.Martin's Engineering College Infra structure, facilities, Training and Placements etc.It is followed by lighting the lamp by all the dignitaries. The Principal Sir, in his speech motivated all the students to do hard work for reaching their goals and requested all the parents to take responsibility for their wards' development in his inspirational speech, sir cleared the doubts about variation in salary packages based on individual students performance and smart work he/she will be placed with attractive salaries in top companies. For that sir requested all the parents to monitor students academic practices.

Chairman Sri M Laxman Reddy Garu shared about his journey as a master veteran athlete. He insisted all the students to maintain physical fitness by participating in games and sports regularly. He strongly believes that everyone's success begins with healthy lifestyle and good habits, Executive Director explained about the importance of Engineers in social development. Chief guest Sri Ch.Malla Reddy Garu, in his speech inspired all the students and parents by sharing his success story.

He suggested all the students to plan properly for reaching their goals.The programme was ended with the felicitation of Chairman Sri M. Laxman Reddy Garu for his outstanding achievement in recent competition 1st PAN India National Master Games and receiving 3 medals.

National Cadet Corps

The National Cadet Corps (NCC) is the youth wing of the Indian Armed Forces with its headquarters in New Delhi, India. It aims at its motto "UNITY & DISCIPLINE" . NCC was formed on July 15, 1948. However, NCC Day is celebrated on the fourth Sunday of November every year. This year's 75th NCC Day was observed on 27th of November 2022 at the NCC Directorate(AP& T). The event organized an Alumni meet to commemorate the 75 years of NCC for their selfless service to the nation. Nearly 350 Ex-NCC cadets came forward on this occasion. The gathering was addressed by Deputy Director General, Air Commander P Maheshwar, VM(G).

Mrs. Madhavi Jalasuthram, a motivational speaker and an Alumni, addressed the gathering and shared her experiences as an NCC cadet. Actress Anasuya Bharadwaj , ex NCC Cadet also expressed her gratitude to NCC in shaping her confidence.Most of the Ex- Cadets have been separated from NCC by their professions and decisions but re-connected with each other due to this event.

The 7(T) Bn NCC had 10 of its girls report at 8am to help with the setting up of the event. Each of them wore such a contagious smile and interacted with us in such an active tone that we felt like we're the old ones. It surprised us to know the positions they had been in. Since they were so down to earth , we hardly felt any uptightness to interact with them.

The event ended at 2pm with all the alumni Cadets being photographed with the "Alumni NCC Cap ".

Events Attended

ML Workshop

Guest Lecture

Technovation

Industrial Visit

AWS Workshop

Cyber Security Workshop

Technical Talkshow(TAM)

TechCrunch(Sympoagyan)

Students Experience

I've always had a real passion and enthusiasm in the domain of AI as my biggest inspiration was iron man from Marvel comics and luckily by the time I was starting my BTech, (AI&ML) became a branch for engineering that very year it was like a dream come true for me. I've also wanted to join in SMEC and although I had some conflicting feelings considering our branch being the newly opened bud and all and the classes being in online mode due to the pandemic and all, I finally came through with the help of our wonderful mentors who guided my every step and helped me overcome my uncertainties. In our first year we didn't have any events due to COVID, so I've invested most of my time in doing various certificate courses regarding our domain, published my first research paper on Ethics in AI which helped me strengthen my technical skills and gain more confidence in myself, by the time I reached my second year I've been participating in nearly all the events conducted by our college such as cultural events like freshers, traditional day, annual day, technical events like Smart India Hackathon, TAM events, workshops, etc. Overall I would like to say that I had a wonderful experience with my branch because I have made good friends who are always supportive of me, and also my amazing faculty members for always being there for me.

Avinash Kuppam
III Yr CSE(AI & ML)

Predicting the future isn't magic , it's artificial intelligence .A tremendous journey has started in my life towards AI in the year 2020 at St. Martin's engineering college . I am very glad that I got to explore various technologies. I clearly remember the day I stepped into the college , it was buzzing with energy and excitement which made me feel right at home. During my two years here , I have made some amazing memories , learned new skills and grown as a person .

I got an opportunity to publish our first ever research paper at international conference held in the college during first year . Attending webinars and workshops helped me to gain much knowledge and also taking part in various activities like organizing fresher's day and traditional day along with my friends helped me develop my personality. Participating in smart India hackathon has made me confident in the technical aspects . Coming to my third year , I framed my goal of being a full stack developer; started my career by learning the basics of web development as well as more advanced topics such as React and NodeJS . I also got hands-on experience working on dynamic projects such as building a Budget app and an interactive games. I am really grateful to our Principal, H.O.D, and our college staff for guiding me through out my journey.

Angel Mary Poulina Amirineni
III Yr CSE(AI & ML)

Students Experience

The journey of my college life began at St. Martins engineering college in the year 2020 in online mode, I have been selected as an NCC cadet, the selections were held in our college premises, I feel proud to be caped in the uniform and the serve the country. It was one of my best choices to choose St. Martins engineering collage and I have no regrets in doing so. I had a great time in participating in technical events such as technovation and also by organizing fests, exploring innovative ideas, while balancing my grades parallelly. I have also worked as a sports coordinator this year which was fun and engaging, it helped me gain experience in organizing and management, which enhanced my leadership skills that further improved my communication and motor skills.

Our college shaped me into a strong person, to be confident even in tough situations, and guided me in choosing the right career path to success. I am thankful to our principal, H.O.D as well as college management, and my dear friends who have always been my pillar of support in all of my situations, for my development and success.

Anokhi Bhyravatla
III Yr CSE(AI & ML)

The "college phase" is one of the most interesting stages in life that gives you an opportunity to explore , this exploration led me in this eminent college and I am really delightful to experience this staggering journey so far and way too electrified for my upcoming years . This college has always provided us with various manifesto to explore our skills and master them with the help of our adept faculties which are always there as the frontline warriors to tackle any problem faced by the students .the college has always provided us with various events including both technical and non technical which includes Technical Awareness Month, webinars and classes to make us aware of internships , non technical events like Swayamkrushi.

Our college also focuses to cheer the students and so we enjoy the events conducted in college like fresher's day , traditional day , annual day and sports day . The holistic development of students is given the uttermost priority there are many more sports encouraged by our Professional Director. The talents of students are recognized in events like sports day where we participate in various sports and excel in such activities. It's been a lovely experience yet and looking forward for an astounding experience.my heartfelt gratitude towards our principal , my HOD and last but not the least all teaching and non teaching staff..

Sarthak Rath
II Yr CSE(AI & ML)

Student Clubs

Ethical Hacking Club

Helps to create awareness on cyber threats and to understand how hackers breach our data few demos and projects like firewall creation are made in club in a professional way.

Internet Of Things (IOT) Club

Helps to encourage & master the students in the IOT and related domains & develop new industry ready skills along with the work on practical projects to gain knowledge in IOT.

Coding Club

It helps to improve the coding skills of the students with there   logical thinking ability and complex coding projects, competitive and dynamic programming.

Student Clubs

AI & ML Club

Helps to create better understanding and form perfect bond between man and machine understand the risks of misusing the AI. It Mainly deals with fundamentals and applications of Artificial Intelligence & Machine Learning in the real world.

Web Designing Club

In the current world, website creation has become a necessity for every company and startups. Web designing club helps students in learning frontend and backend technologies which are useful for website creation and practically helps students to create websites and deploy.

Department Gallery

Department Gallery

Creative Corner

**Sombathina Madhu Praveen
(III Yr CSE(AI & ML))**

I started painting as a hobby when I was little. I didn't know I had any talent. I believe talent is just a pursued interest. Anybody can do what I do.
— Bob Ross

- Art by Sombathina Madhu Praveen (III Yr)

Creative Corner

<u>వెలుగు</u>

చీకటినెదురించు వెలుగు
కలిగించెను తనకు పరుగు
చీకటి ఎంతెదిగినను
వెలుగును పెకిలించునా
చీకటంటి బాధలన్నీ
ఒక్కటయ్య కలిగినను
వెలుగు వంటి ధైర్యముతో
బెదురు లేక మెలగరా

<u>पृथ्वी</u>

ब्रह्मांड के कितने ग्रह
विश्व की कई निकेतन
तारों के समूह भी हो
या सितारों का प्रतिष्ठान
क्या कहीं भी मिल सकता है
पृथ्वी से भी विशेष स्थान
मेरे मही से बेहतर है कहीं
मेरी धरती सबसे सही

<u>Recruits of Artificial Intelligence</u>

Conquering the conquests of intelligence
quelling the requests of brilliance
pulverizing the prerequisites of reconnaissance
advance the recruits of Artificial Intelligence
leading the world into an era radiance

- By Avinash Kuppam

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