

Progressive Education Society's

Modern College of Engineering

1186/A, Off J.M.Road, Shivajinagar, Pune-05

Academic Year 2018-19



Department of Information Technology

BEGIN YOUR FUTURE WITH IT

VISION

"TO DEVELOP PROFICIENT IT ENGINEERS FOR THE INDUSTRY AND SOCIETY."

MISSION

TO ACHIEVE ACADEMIC EXCELLENCE.

TO DEVELOP STUDENTS FOR BEING COMPETENT IN DYNAMIC IT ENVIRONMENT.

TO ENCOURAGE RESEARCH AND INNOVATION.

TO INCULCATE MORAL AND PROFESSIONAL ETHICS.

THE ESSENCE OF "COGNIZANCE" IS PERCEIVED IN ITS NAME ITSELF WHICH MEANS KNOWLEDGE AND AWARENESS. AT THE DEPARTMENT OF INFORMATION TECHNOLOGY WE STRIVE TO GET INTO A CONTINUOUS EDUCATION PROGRAM. TRUE EDUCATION IS TRAINING OF BOTH THE HEAD AND THE HEART. HERE, THROUGH OUR SENIORS WHO STARTED THIS NEWSLETTER, WE HAVE DEVELOPED AN ENVIRONMENT OF LOOKING AT THE POSITIVES IN ALL SITUATIONS AND FOCUSING ON OUR STRENGTHS. WE ARE FOLLOWING THE PATH THAT OUR SENIORS HAVE DISCOVERED AND TAKEN IT A BIT FURTHER AHEAD THROUGH OUR ASPIRATIONS AND PERSPIRATION. SO LETS ALL

"WITNESS THE FUTURE WITH IT".

MESSEGE FROM HOD's DESK

Prof. S. D. Deshpande ENGINEERS ARE NOT BORN, THEY ARE MADE. WE ARE INDEED LIVING IN IN-FORMATION TECHNOLOGY (IT) AGE. OUR COMMITMENT TO THE STUDENTS IS THAT THEY WILL DEFINITELY HONOUR TWO WORDS "INFORMATION" WITH "TECHNOLOGY". DEPARTMENT'S PRIMARY OBJECTIVE IS TO ENSURE GOOD ACADEMIC ENVIRONMENT FOR ALL THE STUDENTS. WITH BRIGHT ACADEMIC, STUDENTS CAN EXCEL WITH EXCELLENCE IN THEIR PROFESSIONAL CAREER. DEPARTMENT IS CARRYING OUT NUMBER OF ACTIVITIES WHICH WILL SHAPE THE PROFESSIONAL CAREER OF THE STUDENT AS A TECHNOCRAT/TECHNO MANAGER. WE WELCOME YOU TO OUR DEPARTMENT BY TAKING THE FIRST STEP OF SUCCESS.

STAFF IN CHARGE VIEW PROF. AJEET PATHAK

PERSISTENCE AND DETERMINATION ARE THE KEYS TO SUCCESS.

PERSISTENCE IS THE COMMITMENT TO FINISH WHAT YOU HAVE STARTED, EVEN IF IT MEANS GOING AN EXTRA MILE WHEN THE ODDS ARE STACKED AGAINST YOU. THE RATE AT WHICH WE GO IS IRRELEVANT. IN TODAY'S ERA, THE CHANGING NATURE OF I.T. INDUSTRY HAVE MADE PERSISTENCE AND DETERMINATION CRUCIAL THAN EVER.

STUDENT IN CHARGE VIEW
ABHILASH VARMA

I THANK THE DEPARTMENT OF INFORMATION TECHNOLOGY ON BEHALF OF THE EDITORIAL TEAM FOR GIVING US THIS UNPRECEDENTED OPPORTUNITY OF WORKING ON THE NEWSLETTER. OUR MOTO FOR THIS ENTHRALLING OPPORTUNITY WAS "FOCUS ON THE JOURNEY, NOT THE DESTINATION". I HOPE THAT THIS NEWSLETTER IS AS ECSTATIC TO THE READERS AS IT WAS TO THE EDITORIAL TEAM.

Fall of The Unknown

Little Did he know what life had for him ahead

FOREWORD

THIS IS A STORY OF SOME ONE AMONG US, ONE WHO WAS BROKEN BY LIFE BUT HE NEVER GAVE UP DESPITE ALL THE TROUBLES THAT FELL IN HIS WAY, THIS A STORY OF A GUY ONE WHO QUESTIONED EVERYTHING, FAILED A MILLION TIMES AND STOOD BACK UP EVERY TIME HE WAS KNOCKED DOWN, HE'S ONE WHO ALWAYS REBELLED THE CONVENTIONAL WAYS OF LIFE AND TRIED TO CHANGE THE WORLD, THIS STORY IS ABOUT WHAT HE LEARNT FROM LIFE.

"ITS OUR MIND THAT MAKES EVERY PROBLEM LOOK BIGGER THAN IT ACTUALLY IS."

- Unknown

THE STORY STARTS WAY BACK IN HIS COLLEGE DAYS, WHERE HIS LIFE ACTUALLY BEGUN, PLACE WHERE HE LEARNT THAT ALL THE PRINCIPLES OF LIFE OF LIVE AND LET LIVE SHATTERED INTO PIECES, PLACE WHERE HE REALIZED THAT THIS WORLD IS A DARKER PLACE THAT HE THOUGHT IT WAS.

CHAPTER 1: THE BEGINNING

FIRST DAY IN THE COLLAGE, A LITTLE BIT NERVOUS, SOME WHAT AFRAID TOO. HE WAS A HUMAN LIKE ME AND YOU SO THAT WAS OBVIOUS. BUT UNLIKE US ALL, HE HAD WITH HIM A DREAM, A DREAM THAT NO ONE ELSE AT HIS AGE WAS EVEN CAPABLE OF IMAGINING WHAT HE HAD UP ON HIS MIND, SOON TIME STARTED FLOWING, HE CAME IN ACQUAINTANCES WITH NEW PEOPLE, PEOPLE HE NEVER MET BEFORE, PEOPLE ABOUT WHOM HE KNEW NOTHING, PEOPLE WHO WERE NEW, HE MADE FRIENDS WITH THEM, AS IT'S BETTER TO BE WITH SOMEONE RATHER BEING ALONE, SOON THE FRIENDS BECAME A GROUP AS NORMALLY WHAT OCCURS. IN THE MEANTIME THE COLLAGE WAS GOING GOOD, LEARNING, STUDYING, HAVING FUN, HAD BECOME THE EVERYDAY ROUTINE, BUT SOON HE KNEW WHAT SEEMS TO BE SO GOOD ISN'T, IN THE GROUP HE KNEW ALREADY SOMETHING WAS TROUBLING HIM HE KNEW WHAT SEEM TO BE ALRIGHT ISN'T WHAT IT SEEMS, HE HAD A CLEAR DOUBT THAT THERE ARE THINGS GOING AROUND HIM THAT HE WAS KEPT UNAWARE BY THE PEOPLE HE SO CALLED FRIENDS. BUT THAT WAS SOMETHING THAT BOTHERED HIM THE LEAST AS FAR AS EVERYONE WAS GOOD WITH HIM AND HE WAS GOOD WITH EVERYONE.

That's what he came to collage with, the attitude of be and let be, make the world a happy place. The things that he was taught in the school, the principles of life he believed in like the world is a beautiful place, people are always good, do good to get good. Cracked and shattered into pieces in front of his eyes, just like a stone breaks the Glass and shatters into pieces. The things that occurred with him, the things that he saw, the problems that he fought, the situations he went through, cleared all his doubts but he still was the same he never really changed. Things happened that hurt him, things that broke him and tore him apart, thing that he never ever imagined, happened to him, but he never let it out, he never let his emotions control him, he never flew with what he felt he kept himself covered under a mask of fake smiles he too had a broke heart.

The time in the collage, from the beginning a girl had caught his eye, he just couldn't resist himself from finding her every day in the crowd of people, the girl always up on his mind. Fortunately she came in the same group of friends as he thought he was lucky, soon he started to talking to her, they became friends, good friends soon he made his steps, it was his first time though but he had it over his mind for a while so he decided to lose it and so on he told her what he felt, buthe failed she rejected him, it was fine for him, but the thing that hurt him came later, the trust he had, was broken by someone who he considered on the high priorities, person who he considered his brother came out to be in relation with the girl he loved, problem was not that they were in a relation the problem was both of them were his good friends, and both of them knew that he fell for her, and no one of them told him that.

THAT'S WHAT BROKE HIM AND THE TRUST HE HAD OVER THEM WAS CRUSHED. THAT'S WHERE HE LEARNT NOT TO TRUST ANYONE UNTIL YOU TRUST YOURSELF WITH THAT PERSON. BUT HE NEVER LET WHAT'S INSIDE OF HIM, THE PAIN TO COME OUT, HE ALREADY KNEW THAT ANYONE CAN TAKE ADVANTAGE OVER IT IF HE KEPT IT ON HIS FOREFACE, SO HE DEVELOPED THIS SPECIAL SET OF MODES THAT HE SWITCHED LIKE ONE CHANGES HATS, THIS IS WHAT HELPED HIM TO PROTECT HIMSELF FROM CRASHING, THOUGH KNOWING THE TRUTH HE KEPT REMEMBERING HER FROM TIME TO TIME. HE STOPPED TALKING TO HER BUT STILL HE HAD HIS EYE ON HER. SOON SOMETHING WENT WRONG BETWEEN HIS FRIEND AND HER AND THEY BROKE UP, THAT TIME SHE CAME BACK TO HIM ASKING IF HE STILL LOVES HER OR NOT, OBVIOUSLY HE SAID YES BUT SHE NEVER ACCEPTED HIM BUT MERELY KEPT AS AN OPTION, HE DINT KNEW THAT BEFORE BUT WHEN HIS FRIEND AGAIN PROPOSED HER SHE WAS BACK IN RELATIONSHIP WITH HIS FRIEND, THAT'S WHERE HE LEARNT NEVER EVER DO THE SAME MISTAKE TWICE, BUT THIS TIME HE HAD SOMETHING UP IN HIS MIND THAT SOMETHING LIKE THAT WILL HAPPEN SO HE WAS ALREADY PREPARED SO THIS TIME A STONE WAS THROWN BUT IT MISSED HIS HEART FROM BREAKING. AND WHAT HEAVENS HIS FRIEND AND THAT GIRL BROKE UP BUT THIS TIME THEY BROKE UP FOREVER.

WELL FROM THEN ON THE PRINCIPLE THAT HE BELIEVED THAT DO GOOD AND YOU'LL GET GOOD CHANGED TO DO BAD AND YOU'LL DEFINITELY GET BAD. WELL SOON AFTER THAT HE ERASED ALL THOSE BAD MEMORIES AND MADE MORE SPACE FOR HIS DREAMS. IN THE MEANTIME HE CAME TO KNOW ABOUT THINGS GOING INSIDE THE GROUP THAT HE WAS UN AWARE, ALL THE INTERNAL POLITICS THAT HE DOUBTED UNFORTUNATELY CAME TO BE TRUE, HE HEARD WHAT HIS SO CALLED FRIEND TALKED BEHIND HIS BACK, HE KNEW THAT MOST OF THEM WERE MERELY JUST USING HIM, BUT IT DINT BOTHERED HIM THAT THEY ARE USING HIM BUT WHAT HE HATED THAT, AFTER USING HIM THEY ARE ABUSING HIM BEHIND HIS BACK NOW THAT WAS SOMETHING HE COULDN'T TOLERATE SO HE LEFT THE GROUP AND NEVER LOOKED BACK, IT WASN'T LIKE HE BROKE CONTACT WITH ALL OF THEM BUT HE STOPPED BEING WITH THEM ALL, THOUGH HE KEPT CONTACT WITH SOME OF THEM AS HE KNEW THEY WERE GOOD BUT STILL HE MADE HIMSELF DISTANCE FROM THOSE MEAN PEOPLE WHO WERE ONCE HIS SO CALLED "FRIENDS"

"IF YOU TELL SOMEONE THAT HE/SHE IS A FOOL EVERY NOW AND THEN, EVENTUALLY AFTER SOME TIME HE/SHE TOO WILL BELIEVE
THAT HE/SHE IS A FOOL. "





INTRODUCTION

Tesla, Inc. is an American company that specializes in electric vehicles, energy storage and solar panel manufacturing based in Palo Alto, California. Founded in 2003, the company specializes in electric cars, lithium-ion battery energy storage, and residential photovoltaic panels (through the subsidiary company SolarCity). The additional products Tesla sells include the Tesla Powerwall and Powerpack batteries, solar panels and solar roof tiles.

CEO ELON MUSK SAID THAT HE ENVISIONS TESLA AS A TECHNOLOGY COMPANY AND INDEPENDENT AUTOMAKER, AIMED AT EVENTUALLY OFFERING ELECTRIC CARS AT PRICES AFFORDABLE TO THE AVERAGE CONSUMER. THE COMPANY WAS NAMED FOR THE ELECTRICAL ENGINEER AND PHYSICIST NIKOLA TESLA BY COMPANY FOUNDERS MARTIN EBERHARD AND MARC TARPENNING.

THE COMPANY'S MODEL S WAS THE WORLD'S BEST-SELLING PLUG-IN ELECTRIC CAR IN 2015 AND 2016. GLOBAL SALES OF THE MODEL S REACHED THE 200,000 UNIT MILESTONE DURING THE FOURTH QUARTER OF 2017. IN SEPTEMBER 2015, THE COMPANY RELEASED ITS MODEL X, A CROSSOVER SUV. THE MODEL 3 WAS RELEASED IN JULY 2017. TESLA PRODUCTION PASSED 300,000 VEHICLES IN FEBRUARY 2018.

Tesla operates multiple production and assembly plants, notably Gigafactory 1 near Reno, Nevada and its main vehicle manufacturing facility at Tesla Factory in Fremont, California. The Gigafactory primarily produces batteries and battery packs for Tesla vehicles and energy storage product

TESLA - AUTOPILOT

Full Self-Driving Hardware on All Cars .All Tesla vehicles produced, including Model 3, have the hardware needed for full self-driving capability at a safety level substantially greater than that of a human driver. Eight surround cameras provide 360 degrees of visibility around the car at up to 250 meters of range. Twelve updated ultrasonic sensors complement this vision, allowing for detection of both hard and soft objects at nearly twice the distance of the prior system. A forward-facing radar with enhanced processing provides additional data about the world on a redundant wavelength that is able to see through heavy rain, fog, dust and even the car ahead.

TO MAKE SENSE OF ALL OF THIS DATA, A NEW ONBOARD COMPUTER WITH OVER 40 TIMES THE COMPUTING POWER OF THE PREVIOUS GENERATION RUNS THE NEW TESLA-DEVELOPED NEURAL NET FOR VISION, SONAR AND RADAR PROCESSING SOFTWARE. TOGETHER, THIS SYSTEM PROVIDES A VIEW OF THE WORLD THAT A DRIVER ALONE CANNOT ACCESS, SEEING IN EVERY DIRECTION SIMULTANEOUSLY, AND ON WAVELENGTHS THAT GO FAR BEYOND THE HUMAN SENSES.

ENHANCED AUTOPILOT ADDS THESE NEW CAPABILITIES TO THE TESLA AUTOPILOT DRIVING EXPERIENCE. TESLA WILL MATCH SPEED TO TRAFFIC CONDITIONS, KEEP WITHIN A LANE, AUTOMATICALLY CHANGE LANES WITHOUT REQUIRING DRIVER INPUT, TRANSITION FROM ONE FREEWAY TO ANOTHER, EXIT THE FREEWAY WHEN DESTINATION IS NEAR, SELF-PARK WHEN NEAR A PARKING SPOT AND BE SUMMONED TO AND FROM GARAGE. TESLA'S ENHANCED AUTOPILOT SOFTWARE HAS BEGUN ROLLING OUT AND FEATURES WILL CONTINUE TO BE INTRODUCED AS VALIDATION IS COMPLETED, SUBJECT TO REGULATORY APPROVAL. EVERY DRIVER IS RESPONSIBLE FOR REMAINING ALERT AND ACTIVE WHEN USING AUTOPILOT, AND MUST BE PREPARED TO TAKE ACTION AT ANY TIME.

ONCE ON THE FREEWAY, TESLA WILL DETERMINE WHICH LANE YOU NEED TO BE IN AND WHEN. IN ADDITION TO ENSURING YOU REACH INTENDED EXIT, AUTOPILOT WILL WATCH FOR OPPORTUNITIES TO MOVE TO A FASTER LANE WHEN YOU'RE CAUGHT BEHIND SLOWER TRAFFIC. WHEN YOU REACH EXIT, TESLA WILL DEPART THE FREEWAY, SLOW DOWN AND TRANSITION CONTROL BACK TO YOU. WITH THE NEW TESLA VISION CAMERAS, SENSORS AND COMPUTING POWER, TESLA WILL NAVIGATE TIGHTER, MORE COMPLEX ROADS. WITH SMART SUMMON, CAR WILL NAVIGATE MORE COMPLEX ENVIRONMENTS AND PARKING SPACES, MANEUVERING AROUND OBJECTS AS NECESSARY TO COME FIND YOU. BUILD UPON ENHANCED AUTOPILOT AND ORDER FULL SELF-DRIVING CAPABILITY ON TESLA. THIS DOUBLES THE NUMBER OF ACTIVE CAMERAS FROM FOUR TO EIGHT, ENABLING FULL SELF-DRIVING IN ALMOST ALL CIRCUMSTANCES, AT WHAT WE BELIEVE WILL BE A PROBABILITY OF SAFETY AT LEAST TWICE AS GOOD AS THE AVERAGE HUMAN DRIVER. THE SYSTEM IS DESIGNED TO BE ABLE TO CONDUCT SHORT AND LONG DISTANCE TRIPS WITH NO ACTION REQUIRED BY THE PERSON IN THE DRIVER'S SEAT. FOR SUPERCHARGERS THAT HAVE AUTOMATIC CHARGE CONNECTION ENABLED, YOU WILL NOT EVEN NEED TO PLUG IN VEHICLE.

ALL YOU WILL NEED TO DO IS GET IN AND TELL CAR WHERE TO GO. IF YOU DON'T SAY ANYTHING, THE CAR WILL LOOK AT CALENDAR AND TAKE YOU THERE AS THE ASSUMED DESTINATION OR JUST HOME IF NOTHING IS ON THE CALENDAR. TESLA WILL FIGURE OUT THE OPTIMAL ROUTE, NAVIGATE URBAN STREETS (EVEN WITHOUT LANE MARKINGS), MANAGE COMPLEX INTERSECTIONS WITH TRAFFIC LIGHTS, STOP SIGNS AND ROUND-ABOUTS, AND HANDLE DENSELY PACKED FREEWAYS WITH CARS MOVING AT HIGH SPEED. WHEN YOU ARRIVE AT DESTINATION, SIMPLY STEP OUT AT THE ENTRANCE AND CAR WILL ENTER PARK SEEK MODE, AUTOMATICALLY SEARCH FOR A SPOT AND PARK ITSELF. A TAP ON PHONE SUMMONS IT BACK TO YOU.



I.T.S.A

I.T.S.A. (Information Technology Students' Association), is run by the students to help students of it DEPARTMENT SHOWCASE THEIR CREATIVE SIDE. THE I.T.S.A TEAM IS DEDICATED THE CELEBRATION OF TECHNICAL AS WELL AS NON-TECHNICAL EVENTS. FOLLOWING ARE FEW OF OUR MAJOR ACTIVITIES



WORKSHOP ON "MOBILE APPLICATION DEVELOPMENT" ORGANIZED BY INFORMATION TECHNOLOGY DEPARTMENT OF PES MODERN COLLEGE OF ENGINEERING, PUNE, ON 7/2/2018 TO 9/2/2018.

ANDROID IS AN OPEN SOURCE MOBILE OPERATING SYSTEM. THIS WORK-SHOP INTRODUCES ABOUT ANDROID, THE FASTEST GROWING MOBILE OS. THE JOB OPPORTUNITIES IN THIS STREAM ARE NOT ONLY RESTRICTED TO THE MANUFACTURING, REPAIRING AND MAINTENANCE OF MOBILE HANDSETS BUT ALSO IT PROVIDES A LOT OF CAREER OPPORTUNITIES IN MOBILE APPLICATION DEVELOPMENT FOR SOFTWARE PROFESSIONALS

DEPARTMENT OF INFORMATION TECHNOLOGY OF MODERN COLLEGE OF ENGINEERING PUNE-05. ORGANIZED A SESSION ON POSTER DESIGN IN CORELDRAW UNDER GRAPHIX CLUB. THE SESSION WAS CONDUCTED BY MR. SURAJ PATIL WHO IS STUDENT OF BE (IT). THE SESSION STARTED BY INTRODUCTION OF CORELDRAW AND THEN SPEAKER GIVES SOME DEMO OF POSTER MAKING WITH CORELDRAW. SPEAKER EXPLAINED ALL CONCEPTS VERY WELL. OVERALL EXPERIENCE WAS GOOD AND STU-DENTS ARE VERY ENTHUSIASTICALLY PARTICIPATED IN THIS SESSION





DEPARTMENT OF IT ORGANIZED A SEMINAR ON MODERN TRENDS IN GPU PROGRAMMING BY MR. DIGVJAY SURYAVANSHI WHO IS WORKING IN NVIDIA, PUNE. HIS AREA OF INTEREST IS GPU PROGRAMMING. SESSION WAS STARTED WITH WELCOME OF GUEST. THEN SPEAKER BRIEFED THE CONCEPTS OF GPU'S. HE ALSO GAVE THE KNOWLEDGE OF OTHER FIELDS OF COMPUTER GRAPHICS. SPEAKER SHARED PPT'S AMONG STUDENTS AND ALSO MOTIVATE STUDENTS FOR MAKING THEIR CAREER IN GRAPHICS FIELD. HE BRIEFED ABOUT GPU'S. SPEAKER SHARED VIEWS REGARDING HIS PERSONAL EXPERIENCE. STUDENTS WAS ACTIVELY PARTICIPATED IN SESSION AND DISCUSS THEIR QUERIES WITH SPEAKER. THEN SPEAKER ANSWERED QUERIES AND GAVE VARIOUS EXAMPLES

THE DEPARTMENT OF INFORMATION TECHNOLOGY FROM MODERN COLLEGE OF ENGINEERING PUNE, HAS ORGANIZED "RANGOLI COMPETITION-CUM-EXHIBITION", UNDER PIXINSIGHT CLUB ON 1STOF FEBRUARY 2018 AT COLLEGE ACTIVITY HALL. STUDENTS FROM DIFFERENT DEPARTMENTS PARTICIPATED AND DESIGNED BEAUTIFUL RANGOLI'S. ONE COULD SEE AND FEEL THE ENTHUSIASM THAT THE STUDENTS HAD IN THEIR RANGOLI DESIGNS. THIS ACTIVITY WAS ORGANIZED TO EXPLORE AND ENCOURAGE CREATIVITY IN STUDENTS AND OFFER THEM A PLATFORM TO SHOWCASE THEIR HIDDEN SKILLS. STUDENTS CAME UP WITH AMAZING CREATIVITY. THEIR EFFORTS AND INITIATIVE WAS APPRECIATED BY ONE AND ALL.





CSI STUDENT CHAPTER OF P.E.S.'S MODERN COLLEGE OF ENGINEERING, PUNE-05, HAS ORGANIZED A GUEST LECTURE ON "HOW TO DO RESEARCH" FOR ALL STUDENTS FROM I.T. AND COMPUTER DEPARTMENT. DR. MANISH GODSE HAS STARTED THE SESSION WITH HOW STUDENTS CAN SELECT THE PROJECT TOPICS, HOW THEY CAN WORK ON IT. SIR HAS SHOWED THEM ONLINE WHAT TO READ FROM RESEARCH PAPERS USING ACM. FOR PROJECT WORK, STUDENTS NEED TO STUDY VARIOUS PAPERS FROM THEIR DOMAIN.