Undergraduate research

SIMATS was the pioneer to start the UG research project in 2012. We are the only institution in India where each UG participates in up to 24 research projects and published upto 20 of them. Our vision was to compete with international universities. Back then we did not have the public or private funding to advance research. Hence we believe there are many day to day problems that require simple solutions. We planned to systematically address these problems with a proper protocol and clinical research. Similarly we did a lot of empirical studies where students visited the public and captured the state of the society. Over time, we were able to publish many of our papers and this became a strong motivator for the students to achieve more. We have second year undergraduate students publishing in 3.6 + impact factor as first author. Such academic freedom is not common in other institutions. 100% of our UG publications have UG as the first author. Today Saveetha stands tall on the unique legacy of our UG publications. We are thankful to our hardworking students who have stamped their names int he history of the institution.

It all started with our dental school where every Dental UG student published around 5-8 papers / year. They were given freedom to select their own guide and perform research. We usually complete our didactic courses early and invest the time in research rather than on observation notebooks or chart work. This protocol was a tremendous success and we implemented the same in other institutions namely engineering, law and medicine. To improve the aptitude to research and to reduce economic burden, we train all our students with SPSS and research methodology SPSS on their own, have a proper PICO, Pre-hoc power calculation, and very systematically executed research. And ultimately this has improved the research culture, atmosphere and quality of research and finally the outcome of research across the University. Students actively pursue funding sponsors to whom they make vibrant presentations and seek support. Our concept of decentralising knowledge has produced a vibrant community of SPSS wizards who perform advanced stats with ease! Furthermore, to motivate young students we began a formative assessment for research added to all courses. This system is similar to an academic bank of credits where in the students research scores are pooled and assorted to each subject by the student. Currently our Law program has 40 marks

for research in all courses and the dental program carries over 100 marks for research. This translated into a powerful research culture. We celebrate research with our Saveetha Transdicsiplinary annual research summit (STAR SUMMIT). STAR SUMMIT has been successfully conducted for engineering, law and dental students for the past 8 years. Here we invite faculty and scholars from other institutions as judges to evaluate the quality of research. Each student is trained to speak to at-least 50 + evaluators. We believe this is the single most important turning point for students to develop confidence.

The STAR SUMMIT exercise started as an awareness attempt and later evolved into a passionate stage to exhibit one's project. Every year students usually present around 4000+ projects in their respective college star summits. Some students achieve large grants upto 1 lakhs to do research. This concept of undergraduates doing sponsored research projects is unique to Saveetha. This has increased our publication footprint. We can confidently say that upto 35% of our publications arise from Undergraduate projects. Our UG's have also won the famous IADR Hatton Scholarships and travel grants worth 2000 dollars almost every year. The institutions also have many fail safe mechanisms to ensure that the quality of the research is maintained. We do have more than 1 crore worth subscription to Journal databases, students also use Turnitin and Google Docs based plagiarism tools to ensure originality. Although softwares are useful only to an extent, we take things a step further by conducting a research exam. This is a blinded exam. The student can bring a booklet with PICO analysis and citations. They have a 4 hour exam where they are expected to articulate their thoughts into a 1500 word hand written manuscript. This is corrected by the faculty and then typed into google docs. All our faculty and students use paper pile bibliometrics software and the institution

has a paid subscription. After the manuscript is corrected by the guide, it is forwarded to the mentor to check for common protocols like title page, cover page and affiliation errors etc. Then the manuscripts are forwarded to a team of 40 peer reviewers in each institution. They will evaluate the manuscript and finally the dean meticulously reviews the sheets and processes them for publication. Hence, the quality of manuscripts are extremely well standardised. In fact a Saveetha UG paper can be distinctly identified from a random bundle. Our faculty have invested thousands of hours to achieve this quality. Each undergraduate from Saveetha Dental College will have a minimum of 10 publications in Scopus. Apart from this we have also inculcated a rich culture of innovation among our UG's, they have published over 10 patents in the last 2 years. Now the institution has invested over 25 cores in unique equipment like India's first Nano SEM, nano CT etc. This has greatly improved students' access to these machines for which the institute also supports them with seed money to promote research. We believe our research protocols, research exam, multi level vetting standardised booklets for structure paper preparation training in SPSS all come together to make our training unique and stand out distinctively from others.