



# St Berchmans College

Founded 1922

**AUTONOMOUS**

College with Potential for Excellence | Reaccredited by NAAC with A Grade

NIRF Rank 2022 : 62 | [www.sbcollege.ac.in](http://www.sbcollege.ac.in)



## PROBLEM SOLVING LEARNING

Problem Solving Based Learning (PSBL) is a teaching method in which complex real-world problems are used as the vehicle to promote student learning of concepts and principles as opposed to direct presentation of facts and concepts. In addition to course content, Problem Solving Based Learning can promote the development of critical thinking skills, problem-solving abilities, and communication skills. It can also provide opportunities for working in groups, finding and evaluating research materials, and life-long learning. St Berchmans College enhances Problem Solving based learning through the following means,

### ➤ **Brainstorming**



Brainstorming is a strategy used to generate a number of ideas to help solve a particular problem. Techniques vary but there is a general structure to follow when developing brainstorming sessions. After the problem or issue is presented, students are organized into groups to brainstorm all possible ideas which could solve the problem. Discussion of these ideas takes place after the brainstorming session ends, usually after a defined period of time. Each idea will be discussed and considered, some ideas will be eliminated, and a final list will be ranked for possible use as a solution toward solving the problem. In

St. Berchmans College brainstorming is an integral part of the curricular and extracurricular activities. At St. Berchmans college group assignment are part of the internal assessment, wherein student will have to brainstorm on how to creatively and effectively achieve the objectives of the assignments. Moreover, in the final semester for Post graduate and Under graduate students there are group projects which are part of their assessment. In the process of completing their group projects the students will have to work as a team, brainstorm and come up with the best strategies and plans.

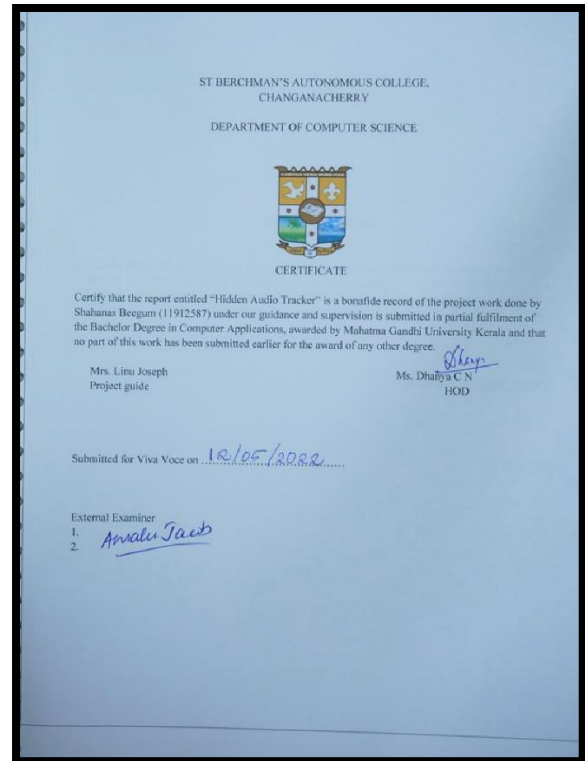
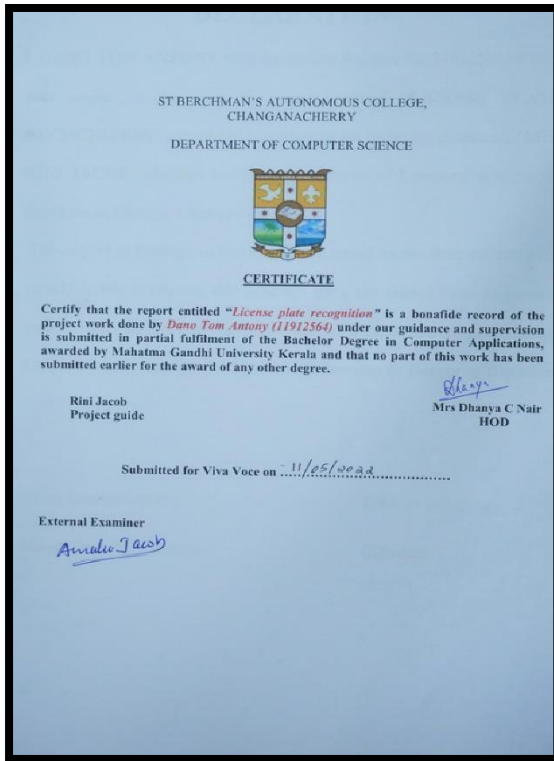
## ➤ Solving Problems through Research

Applied research is a type of research that attempts to find practical solutions to existing problems. This type of research employs empirical methodologies, such as experiments, to develop an understanding of new knowledge. After acquiring the data from the experiment, scientists try to understand how the data might be useful. This type of research usually focuses on a specific question that forms the basis for an experiment. At the St. Berchmans College, in the final semester for Post graduate and Under graduate students there are group projects which are part of their assessment. Most of these research projects are undertaken as a form of applied research wherein the students through their research provide practical solutions to alleviate such real-world problems.



## ➤ Solving problems through coding and troubleshooting

Many of modern-day problems and needs are solved using coding and troubleshooting. Most of the modern-day applications and softwares around us have made life easier for the human race. The Department of computer science offers Bachelor and Master of computer applications course. As part of the course, it is mandatory for the students in the final year to submit research projects. Most of the students take the initiative to solve real world problems through coding and trouble shooting in their projects.



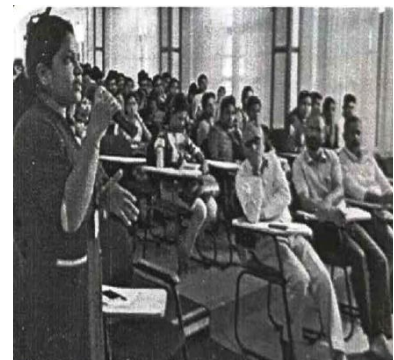
## ➤ Drawing and making circuits



A circuit diagram is a graphical representation of an electrical circuit. A circuit diagram, also called an electrical diagram, elementary diagram, or electronic schematic, is a simplified graphical representation of an electrical circuit. Drawing circuit diagrams and making circuits is usually undertaken by the undergraduate students in the department of Physics.

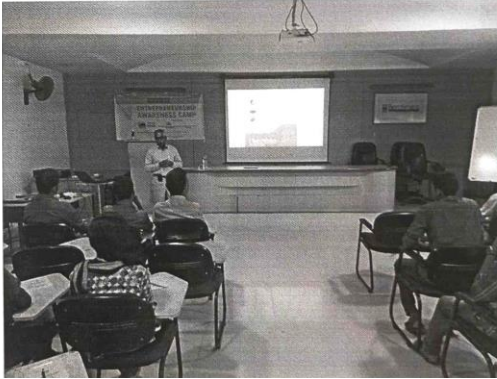
## ➤ Budget Analysis

Every year in the month of February the Union Government of India presents the Union Budget. The Union Budget is also known as the Annual Financial Statement. Article 112 of the Constitution of India lays down that it is a statement of the estimated expenditure and receipts of the Government for a particular year. Every year at St. Berchmans College in the month of February soon after the Union Budget is presented in the parliament, the department of Economics conducts a budget analysis session open to students from all the departments. In this session all the decisions made in the



union budget from the allocation of finances to the changes introduced in different forms of taxes are discussed and debated.

## ➤ Case Study Analysis



A case study is a description of an actual administrative situation involving a decision to be made or a problem to be solved. It can be a real situation that actually happened just as described, or portions have been disguised for reasons of privacy. Most case studies are written in such a way that the reader takes the place of the manager whose responsibility is to make decisions to help solve the problem. In almost all case studies, a decision must be made, although that decision might be to leave the situation as it is and do nothing. In the case

method, students teach themselves, with the instructor being an active guide, rather than just a talking head delivering content. The focus is on students learning through their joint, co-operative effort. In St. Berchmans College, the Berchmans Institute of Management studies and the department of Commerce use Case Study Analysis as a pedagogical tool to teach students.

## ➤ Problem solving through work sheets



Worksheets can also provide students with immediate feedback on their performance, which can help them to identify and correct mistakes and improve their problem-solving skills more quickly. Additionally, worksheets can be used to create interactive activities and quizzes, which can help students to actively engage with the material and test their understanding. All the departments in the college use worksheets to teach students numerical problems and this pedagogical technique is helpful for the students to get a better understanding on the problem and its solution.

## ➤ Test and Learn

Test and learn also known as Experimental teaching can be defined as a process that includes a procedure carried out to support laid down assumptions. The procedures entail hands-on

activities that engage and motivate students to learn by testing their knowledge in laboratories. This type of pedagogical technique is used to teach in the science stream courses. All the departments in the science stream have laboratories with adequate facilities to facilitate test and learn pedagogical technique. Moreover, St Berchmans College had organized a Science and Cultural Exhibition SAMVIT as a part of its centenary celebrations. The Exhibition not only provided an opportunity for students to showcase their talents but also helped to promote test and learn technique as students came up with new and innovative exhibits based on the foundational knowledge they gained from their courses.



## ➤ Internships

An internship is a professional learning experience that offers meaningful, practical work related to a student’s field of study or career interest. An internship gives a student the opportunity for career exploration and development, and to learn new skills. At St. Berchmans College all the department encourages their students to take up summer internships during year breaks.

