



**International Conference**  
*on*  
**Optimization, Learning and Analytics in Business**  
**(OLAB 2022)**  
**15th - 17th December 2022**

*Jointly organized by*

**Department of Mathematics**  
**Heritage Institute of Technology**  
Kolkata, West Bengal, India

**&**

**Operational Research Society of India**  
(Kolkata Chapter)

**Venue:- S. V. Auditorium**  
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## OLAB-2022



This “Book of Abstracts” of the International Conference on **Optimization, Learning and Analytics in Business (OLAB-2022)**, held during **December 15-17, 2022**, jointly organized by **Department of Mathematics, Heritage Institute of Technology, Kolkata and Operational Research Society of India, Kolkata Chapter** and is being published by the organizers.

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Heritage Institute of Technology, Kolkata, India.

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## **Applying the ID3 Algorithm to anticipate professional students' preplacement training**

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### **Abstract**

Different professional degrees have been shown to require students to acquire various sets of abilities and competencies. Institutions aim to provide a variety of courses to help students develop their skills, but they do not always know what students want. Recruiters were found to evaluate applicants' technical and soft abilities equally. Students believe that when they complete a professional program, specific types of instruction will help them develop their talents. The institute is having difficulty understanding what the student expects from them. This study assessed student expectations and perceptions of higher education institutions. It was done to determine the training requirements that educational institutions ought to satisfy. The objective of this study was to determine the criteria that can be used to predict training needs. Students were separated into groups using the ID3 method of the decision tree to determine their predictions based on these variables. The confusion matrix and the R.O.C. curve were used to determine the model's robustness. The specificity rate was 74.1 percent, sensitivity was 78.6 percent, and accuracy was 76.7 percent. The sum of the sensitivity and specificity scores was 1.527. The study gets an empirical R.O.C. of 0.76. It's a good sign if the model's capabilities are sufficient. The technique revealed that students have high expectations for instruction in soft skills.