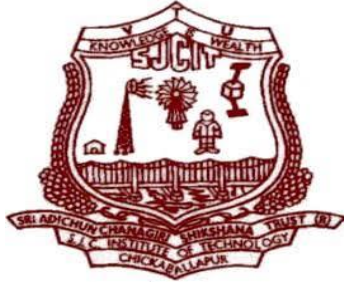


# S J C INSTITUTE OF TECHNOLOGY

B.B.ROAD, CHICKBALLAPUR-562 101



## Workshop on **“Application of Excel in Aeronautical Industry”** **DEPARTMENT OF AERONAUTICAL ENGINEERING**

27<sup>TH</sup> MARCH– 31<sup>ST</sup> MARCH 2023

### Introduction

The Department of Aeronautical Engineering in association with HRD, SJCIT conducted workshop on Excel which provided a hands-on session on MS Excel through Bizotic Talent Solutions Private Limited for 4 days. This was a training workshop on the application of Excel in Aeronautical Industries provided by the Department of Aeronautical Engineering for 6th-semester students. This workshop will and bridge the gap between the industry-academia and provide a platform & exposure to the need of the industry

### Objectives:

- To familiarize the students with the basics of MS Excel for internship opportunities in Aeronautical industries.
- To enable students to format, organize and calculate data in a spreadsheet.
- To focus on data arrangement, formatting, functions, formula, and many more.

### **Day-1 – 27/03/2023**

The first day started with an introduction to Excel which worksheet operations, working with cells & ranges, table features in Excel, worksheet formatting, working with formulas, and working with functions.

In the afternoon session text manipulating formulas, working with date and time, and formulas to sum were covered.

### **Day-2 – 28/03/2023**

As students were facing difficulty in learning day 1 topics, the trainer revised the basics of the previous day. New things to learn were ideas on different graphs, charts, and bar graphs to generate graphs from the given data were covered.

The afternoon session started with functions such as computing sum, average, count, max and min value, exponential form, and trigonometric functions. Conditional functions such as logical expressions, Boolean functions, if, or, and, functions, creating quadratic equation solver, table VLOOKUP, HLOOKUP, XLOOKUP.

### **Day-3 – 29/03/2023**

This day started with regression analysis which includes, trend line, interpolation & forecast, The LINEST function, and Multilinear functions. Students started facing difficulties from here.

The afternoon session started with the iterative solutions consisting of GOALSEEK, using a solver to find roots, finding multiple roots, optimization using a solver, and minimization we wrote codes as well.

### **Day-4 – 30/03/2023**

The session started with Matrix Operation such as adding, multiplying by a scalar, multiplying by matrices, transposing, inverting, and solving linear equations. We were playing with different mathematical calculations. Later started with User-defined functions (UDF): IF structure, select case, for next, do a loop, declaring variables and data types, the excel model object, for each next, and so on.

The afternoon session started with numerical integration which includes the rectangle rule, trapezoidal, and Simpson's rule. Also, creating User-defined using Simpson's. Also, differential equations were covered like the R-K method, solving a second derivative differential equation, etc.

### **Day-5 – 31/03/2023**

At last, an assessment test was conducted where students perform well and were able to identify how to sort and format any data. Trainer did his best to teach all one-by-one students with patience.

The second session was the valedictory session where the trainer and the organizers of the workshop along with the participants were present and the valedictory ended with the feedback from few students

## Conclusion

In this training workshop, students were able to enhance their knowledge of MS Excel. Now, everyone is able to format any data into any form using different functions, and charts. It made us easy to use and became familiar with the Excel interface. It was a great opportunity to learn and add on skills to our life. We would like to thank the Department of Aeronautical Engineering, the HRD Department, and Bizotic Talent Solutions Pvt. Ltd.

