

## Preface :

This dissertation comprises five chapters in which a report on the actual process control and the necessary theoretical background is presented. The chapter first deals with the historical developments and (evolution) of the microprocessors. Here the advantages of microprocessor based systems are also discussed. In chapter II<sup>nd</sup> we have taken account of various transducers used in temperature measurements. The characteristics of the transducer used and the construction of the furnace are discussed. In chapters III<sup>rd</sup> and IV<sup>th</sup>, we give architecture of 8085 and its functional block diagram. It is compared with the other microprocessors. The necessary theoretical treatment for different modes of temperature control and the actual systems are given in detail. The V<sup>th</sup> chapter deals with summary and conclusion of the work.

Several figures appear in the dissertation. A list of references is included at the end of each chapter.