

# AN INTRODUCTION TO POWER SYSTEM STABILITY, CONTROL AND OPERATION

Indian Society for Technical Education  
Working Professionals Learning Project  
AICTE Project

Specialisation : Electrical & Electronics  
Code No. : EE002

## An Introduction to Power System Stability, Control and Operation

<b>Author :</b>	R. Ramanujam
<b>ISBN 13 :</b>	978-93-55384-32-4
<b>ISBN 10 :</b>	93-55384-32-7
<b>E-ISBN 13 :</b>	978-93-55384-32-4
<b>Edition :</b>	1
<b>Pages :</b>	142
<b>Type of book :</b>	Paperback
<b>Weight (g) :</b>	300.00
<b>Year :</b>	2006
<b>Language :</b>	English
<b>Publisher :</b>	Khanna Publishing House
<b>M.R.P :</b>	Rs 199.00
<b>Categories :</b>	<a href="#">Electrical, Electronics &amp; Communication Engineering, ISTE Series</a>
<b>SKU :</b>	1725756075
<b>Condition Type :</b>	New
<b>Country Origin :</b>	India

---

## Product Description

---

Power system in India have come a long way since independence. Growth of a power system indicates the health of the economy of a country. But it is accompanied by complexity and this complexity that power system stability and control are relevant. This book is organized into two sections. " Power System Stability" is covered in the first three chapters and " Power System Control" in the latter part of the book. Power system stability is perhaps the earliest dynamic problem the power system engineering had to deal with. It was referred to as "hunting" then. Since then, volumes have been written on this topic and even a preliminary treatment of the entire contribution is clearly out of scope of this book. This learning material is intended for the Electrical Engineering Graduates working professional in power utilities / Independent Power Plants (IPP) in the supervisory cadre and power system planning engineering / system operators / power transmission product manufacturers / Protection Engineers.

---

## Table of Contents

---

### FOREWORD

### PREFACE

**Chapter 1:** Introduction to Stability and Control of Power Systems.

**Chapter 2:** Power System Stability: Concepts and Classification.

**Chapter 3:** Analysis of Power System Stability.

**Chapter 4:** Control of Active Power and Frequency.

**Chapter 5:** Control of Reactive Power and Voltage.

**Chapter 6:** Power System Security.

**Chapter 7:** Supervisory and Energy Management System.



---

## Author

---

**Dr. Ramanujam** obtained his Bachelor of Engineering in Electrical Engineering, Master of Technology in Power Systems, Master of Science in Electrical Engineering and Ph.D in Electrical Engineering from University of Madras, Indian Institute of Technology (Madras), University of Calagary, Canada and Indian Institute of Science, Bangalore in the years 1971, 1973, 1977 and 1986. His areas of interest include power system dynamics, transients application of non-linear system theory and real time simulation. He has authored several papers in international journals. He has worked with leading Consulting Engineering Ltd, Bangalore, Simulation Association Inc., Krupp Atlas Elektronik, Germany and International Development & Engg. Associates, Madras. Currently he is the Professor of Electrical Engineering in College of Engineering, Guindy, Anna University, Chennai.

---

