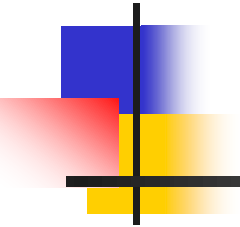


# Automata and Formal Languages



Dept of CSE

R.V.College of Engineering



# Instructor Contacts

---

- Instructor:

Dr. Krishnappa H K

Associate Professor, Dept.of CSE, RVCE

email: [krishnappahk@rvce.edu.in](mailto:krishnappahk@rvce.edu.in)

Ph.No: 9902363643



# Objectives

---

- Introduce concepts in automata theory and theory of computation
- Identify different formal language classes and their relationships
- Design grammars and recognizers for different formal languages
- Prove or disprove theorems in automata theory using its properties
- Determine the decidability and intractability of computational problems



# Course Organization

---

- Very broadly, the course will contain three parts:
  - Part I) Regular languages
  - Part II) Context-free languages
  - Part III) Turing machines & decidability



# Pre-requisites

---

- Data Structures and Algorithms
- Discrete Mathematical Structures



# Required Textbook

---

- Introduction to Automata Theory, Languages and Computation
  - By J.E. Hopcroft, R. Motwani, J.D. Ullman 3<sup>rd</sup> Edition, Addison Wesley/Pearson
- Introduction to Languages and The theory of computation.  
By John C Martin, 3<sup>rd</sup> Edition, McGraw-Hill.