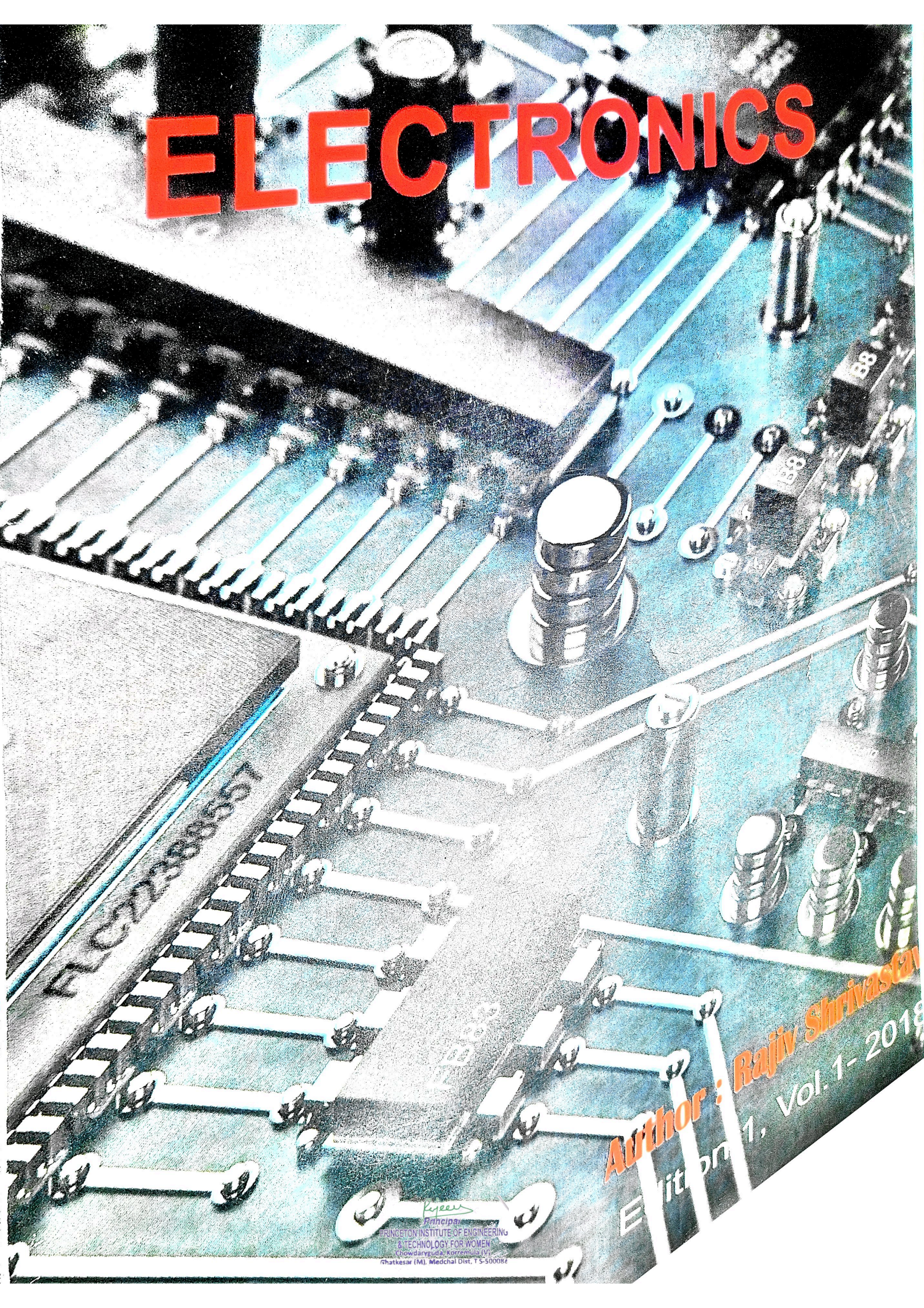


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(Basic Fundamentals)

Prof. Dr. Rajeev Shrivastava

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Syllabus: BASIC ELECTRONICS FIRST TERM:

PN junction, Depletion layer, Barrier potential, forward and reverse bias, breakdown voltage, PIV Characteristics of PN junction diode knee voltage, load line and ideal PN junction diode, junction capacitance, Zener diode

Rectifiers and fitters-half wave, center tap full wave and bridge rectifier, percentage of regulation, PIV, ripple factor, C, RC, LC and PI filter, voltage doubler, clipping and clamping circuit, voltage regulation.

BJT- Introduction, basic theory of operation of PNP and NPN transistor, V-I characteristics, CB, CE and CC configuration, junction FET-introduction, theory of operation, JFET parameters JFET-amplifiers

MOSFET- Introduction, theory of operation MOSFET parameters application. Graphical analysis of BJT and FET circuits, linear models of BJT and FET. Pulse and large signal models of BJT and FET

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