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Nota di contenuto	Intro -- Contents -- About the Editors -- 1 Introduction to Compartmental Models in Epidemiology -- Introduction -- Simple Epidemic Models -- What Is Equilibrium Point and Its Existence? -- How to Compute Threshold or Basic Reproduction Number? -- How to Characterize Nature of Stability? -- What Is Bifurcation and What It Reflects? -- How to Optimize the Issue? -- Inside This Book -- References -- 2 Modelling the Impact of Nationwide BCG Vaccine Recommendations on COVID-19 Transmission, Severity and Mortality -- Introduction -- Mathematical Model -- Basic Reproduction Number -- Local Stability Analysis -- Sensitivity Analysis -- Numerical Simulation -- Conclusion -- References -- 3 Modeling the Spread of COVID-19 Among Doctors from the Asymptomatic Individuals -- Introduction -- Mathematical Model -- Analysis of the Compartmental Model -- Positivity Analysis -- Equilibrium Points -- Basic Reproduction Ratio -- Stability Analysis at DFE (Edfe) -- Stability Analysis at EE (Eee) -- Results and Discussion -- Conclusions -- References -- 4 Transmission Dynamics of Covid-19 from Environment with Red Zone, Orange Zone, Green Zone Using Mathematical Modelling -- Introduction -- Notations -- Mathematical Model -- Spectral Radius Ro -- Stability Analysis -- Local Stability -- Optimal Control Problem -- Numerical Simulation -- Conclusion -- References -- 5 A Comparative Study of COVID-19 Pandemic in Rajasthan, India -- Introduction -- Mathematical Modelling of COVID-19 -- Numerical Analysis --

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