COMPLETE LIST OF PUBLICATIONS [Total: 210(IJ)+5(NJ)+15=230]

[No. of papers Q1: 125; Q2: 40; Q3: 25; ESCI+Scopus+Others: 20]

PAPERS PUBLISHED IN REFFERED INTERNATIONAL JOURNALS

S. No.	Author(s)	Year	Title	Complete Reference of Journal	Type of Journals (SCI/SCIE/ ESCI)
230.	A. Tarafdar, J. Mahato, **R.K. Upadhyay**,, P. Bhattacharya (2025) Exploring the synergy of media awareness and quarantine classes in SiSAQEIHR model for pandemic control: a Deep LSTM-RNN predictions. *Physica D-Nonlinear Phenomena* Vol. xxx, Article No. 134563. SCIE, IF-2.7, Rank: Q1				
229.	**R.K. Upadhyay**, D Pradhan, RD Parshad, P Roy (2025) Existence of global attractor in reaction–diffusion model of obesity-induced Alzheimer's disease and its control strategies. Communications in Nonlinear Science and Numerical Simulation Vol. 140, pp. 1-38, Article No. 108396. SCIE, IF-3.4, Rank: Q1				
228.	J. Jia, D. Hu, **R. K. Upadhyay**, Z. Zheng, N. Zhu, Ming Liu (2025) Canard cycle, relaxation oscillation and cross-diffusion induced pattern formation in a slow-fast ecological system with weak Allee effect. Communications in Nonlinear Science and Numerical Simulation Vol. 140, pp. 1-34, Article No. 108360. SCIE, IF-3.4, Rank: Q1				
227.	B.K. Lenka, R. K. Upadhyay (2025F) Controlling memory chaos and synchronization in real order nonlinear systems. Journal of the Franklin Institute. Vol. 362 (3), Article No. 107503, SCIE, IF-3.4, Rank: Q1				
226.	S Mandal, S Samanta, PK Tiwari, RK Upadhyay (2025) Bifurcation analysis and exploration of noise-induced transitions of a food chain model with Allee effect. Mathematics and Computers in Simulation Vol. 228, pp. 313–338. SCIE, IF-4.4, Rank: Q1				
225.	R. K. Upadhyay, Amit Berman, P.S. Das, B. Panda (2025) On investigation of complexity in extracellular matrix-induced cancer dynamics under deterministic and stochastic framework. Nonlinear Dynamics, 10.1007/s11071-024-10836-z SCI, IF-5.2, Rank: Q1				
224.	B.K. Lenka, **R. K. Upadhyay** (2025) New order-dependent conditions to control a class of nonlinear real-order systems. European journal of Control Vol. 81, pp. 1-15, Article No. 101162. SCIE, IF-2.5, Rank: Q2				
223.	B.K. Lenka, **R. K. Upadhyay** (2025) A new way to synchronize memory chaos. *Differential Equations and Dynamical Systems*. . ESCI, IF- 1.0, Rank:Q3				
222.	Shivam Yadav, J.P. Tripathia, S. Bhuria, S. K. Tiwari, D. Tripathi, Vandana Tiwari, **R. K. Upadhyay**, Yun Kang (2025) Ecological system with fear induced group defense and prey refuge. *Differential Equations and Dynamical Systems*. ESCI, IF- 1.0, Rank:Q3				
221.	**R.K. Upadhyay**, Sarita Kumari, B. Mondal, S. K. Tiwari (2025) Cross-diffusive Pattern formation and Hopf-bifurcation analysis of two species plankton interaction model. Indian Journal of Pure and Applied Mathematics. SCIE, IF-0.4, Rank: Q3				
220.	B.K. Lenka, **R. K. Upadhyay** (2025) New Lyapunov attractive theorems for real-order systems with applications. J. Innovation Sciences and Sustainable Technologies Vol. 5(1), pp. x-xx.				
2024					

219.	**R. K. Upadhyay,** D. Barman (2024) Deciphering two delay dynamics of ecological system with generalist predator incorporating competitive interference. *Physica D-Nonlinear Phenomena* Vol. 468, pp. 1-21, Article No. 134293. SCIE, IF-2.7, Rank: Q1
218.	R Singh, A Ojha, NK Thakur, **R.K. Upadhyay** (2024) Delay-induced nutrient recycling in plankton system: Application to Sundarban mangrove wetland. *Nonlinear Analysis: Modelling and Control* Vol. 29(3), pp. 562-587. SCIE, IF-2.6, Rank: Q1
217.	B.K. Lenka, **R. K. Upadhyay** (2024) Global stabilization of incommensurate real order time-varying nonlinear uncertain systems. IEEE Transactions on Circuits and Systems-II: Express Briefs, Vol. 71(3), pp. 1176-1180. SCIE, IF-4.0, Rank: Q1
216.	B.K. Lenka, **R. K. Upadhyay** (2024) New results on dynamic output state feedback stabilization of some class of time-varying nonlinear Caputo derivative systems. Communications in Nonlinear Science and Numerical Simulation Vol. 131, Article No. 107805. SCIE, IF-3.4, Rank: Q1
215.	**R.K. Upadhyay**, D Pradhan, SK Sharma, A Mondal (2024) Emergence of spiral and antispiral patterns and its CGLE analysis in Leech-Heart neuron model with electromagnetic induction. *Applied Mathematical Modelling* Vol. 128, pp. 154-167. SCI, IF-4.4, Rank: Q1
214.	S. Mandal, Nazmul Sk, P.K. Tiwari, **R. K. Upadhyay** (2024) Chaos and Extinction risks of sexually reproductive generalist top predator in a seasonally force food chain system with Allee effect. *Chaos* Vol. 34, pp. 1-24, Article No. 063142. SCI, IF-2.7, Rank: Q1
213.	S Acharya, **R.K. Upadhyay**, B Mondal (2024) Exploring the complex dynamics of a diffusive epidemic model: Stability and bifurcation analysis. *Chaos* Vol. 34, pp. 1-23, Article No. 023115 SCI, IF-2.7, Rank: Q1
212.	S Acharya, B Mondal, **R.K. Upadhyay**, P Das (2024) Exploring noise-induced dynamics and optimal control strategy of iSIR cholera transmission model. *Nonlinear Dynamics* Vol.112 (5), pp.3951-3975 SCI, IF-5.2, Rank: Q1
211.	B.K. Lenka, **R. K. Upadhyay** (2024) New Lyapunov stability theorems for fractional order systems. *Journal of Nonlinear, Complex and Data Science* Vol.25 (3-4), pp. 323-337
210.	D. Barman, **R. K. Upadhyay** (2024) Exploring the Dynamics of Fractional Order Generalist Predator-prey System with Competitive Interference. J. Innovation Sciences and Sustainable Technologies Vol. 4(2), pp. 79-102.
2023	
209.	D. Barman, **R. K. Upadhyay** (2023) Modeling predator-prey interactions: A trade-off between seasonality and wind speed. Mathematics Vol. 11(23), Article No. 4863. SCIE, IF-2.4, Rank: Q1
208.	S. Acharya, **R. K. Upadhyay**, Bapin Mondal (2023) Impact of Allee effect on the spatio-temporal behavior of a diffusive epidemic model in heterogenous environment. *International Journal of Bifurcation and chaos* Vol.33(16), pp. 2350194. SCI, IF- 2.2, Rank: Q2
207.	V.P. Bajiya, J. P. Tripathi, **R. K. Upadhyay** (2023) Deciphering dynamics of COVID-19 outbreak in India: An age-structured model. Journal of Biological Systems Vol. 31(4), pp. 1371-1406. SCIE, IF- 1.6, Rank: Q3
206.	J. Liu, **R.K. Upadhyay**, R. Agrawal, A. Zeb, T. Saeed (2023) Dynamics of a prey-predator model incorporating Gestation time delay and fear effect. *Fractals,* Vol. 31(10), Article No. 2340155. SCIE, IF-4.7, Rank: Q1
205.	K. Dehingia, P. Das, **R. K. Upadhyay**, AK Misra, FA Rihan, K. Hosseini (2023) Modelling and analysis of delayed Tumour–immune system with hunting T-cells. *Mathematics and Computers in Simulation*, Vol. 203, pp. 669-684. SCIE, IF-4.6, Rank: Q1

204.	Renu, R.K. Upadhyay, S.P. Tiwari, R.P. Yadav (2023) Analysis of interval-valued model for interaction between plankton-fish population in marine ecosystem. Ecological Modelling, Vol. 484, 110448, 1-13. SCIE, IF-3.1, Rank: Q2
203.	Benjamin Ambrosio, M. A. Aziz-Alaoui, A. Mondal, A, Mondal, Sanjeev K. Sharma, **R. K. Upadhyay** (2023) Non-Trivial Dynamics in the FizHugh-Rinzel Model and Non-Homogeneous Oscillatory-Excitable Reaction-Diffusions Systems. BIOLOGY BASAL, Vol. 12(7), 918, 1-20. SCIE, IF- 4.2, Rank: Q1
202.	R.K. Upadhyay, S. Acharya (2023) Modeling the transmission dynamics of a time-delayed epidemic model with saturated treatment rate. International Journal of Biomathematics, Vol. 16 (7), 2250122, 1-35. SCIE, IF- 2.2, Rank: Q3
201.	J. Liu, **R. K. Upadhyay**, Agrawal, Anwar Zeb, T. Saeed, Z. Ahmad (2023) Hopf bifurcation and global stability of a predator-prey model with alternative resource and cannibalism. Fractals, Vol. 31, No. 10, Article No. 2340084. SCIE, IF-4.7, Rank: Q1
200.	E.M. Takyi, R.D. Parshad, **R. K. Upadhyay**, V. Rai (2023) Blow-up dynamics and Synchronization in Tri-trophic food chain models. *Algorithms* Vol. 16(4), pp. 180-194. SCIE, IF-2.3, Rank: Q2
	2022
199.	**R. K. Upadhyay**, S. K. Sharma, A. Mondal, A. Mondal (2022) Emergence of hidden dynamics in different neuronal network architecture with injected electromagnetic induction. *Applied Mathematical Modelling* Vol. 111, pp. 288-309. SCI, IF-5.0, Rank: Q1
198.	A. Mondal, A. Mondal, M.A. Aziz-Alaoui, R.K. Upadhyay, S.K. Sharma, C.G. Antonopoulos (2022) The generation of diverse traveling pulses and its solution scheme in an excitable slow-fast dynamic. *Chaos* 32, 083121, pp. 1-32. SCIE, IF-2.9, Rank: Q1
197.	H. Zhang, **R.K. Upadhyay**, G. Liu, Z. Zhang (2022) Hopf bifurcation and optimal control of a delayed malware propagation model on mobile wireless sensor networks. *Results in Physics* Vol. 45, Article No.105926, pp. 1-8. SCI, IF-4.3, Rank: Q1
196.	**R.K. Upadhyay,** S. Chatterjee, P. Roy, Dyuti Bhardwaj (2022) Combating COVID-19 crisis and predicting the second wave in Europe: An Age-structured modeling. *Journal of Applied Mathematics and Computing* Vol. 68, pp.4669–4689. SCIE, IF-2.2, Rank: Q1
195.	S.K. Sharma, Argha Mondal, Arnab Mondal, M. A. Aziz-Alaoui, **R.K. Upadhyay,** Jun Ma (2022) Emergence of Canard induced mixed mode oscillations in a slow-fast dynamics of a biophysical excitable model. *Chaos Solitons & Fractals* Vol. 164, Article No. 112669, pp. 1-10. SCI, IF-7.8, Rank: Q1
194.	P. K. Tiwari, S. Roy, A.K. Misra, **R. K. Upadhyay** (2022) Effect of seasonality on a nutrient–plankton system with toxicity in the presence of refuge and additional food. *Eur. Phys. J. Plus* Vol. 137(368), pp.1-24. SCIE, IF-3.4, Rank: Q1
193.	**R.K. Upadhyay,** S. Acharya (2022) Modeling the recent outbreak of COVID-19 in India and its control strategies. *Nonlinear Analysis: Modelling and Control* Vol. 27(2), pp.254–274. SCIE, IF-2.0, Rank: Q2
192.	A. Mondal, **R. K. Upadhyay**, A. Mondal, S. K. Sharma (2022) Emergence of Turing patterns and dynamic visualization in excitable neuron model. *Applied Mathematics and Computation* Vol. 423, pp. 1-15. Article 127010. SCI, IF- 4.0, Rank: Q1
191.	Sarita Kumari, S.K. Tiwari, **R. K. Upadhyay (2022)** Cross diffusion induced spatiotemporal pattern in diffusive nutrient–plankton model with nutrient recycling. *Mathematics and Computers in Simulation*, Vol. 202, pp. 246-272. SCIE, IF-4.6, Rank: Q1

190.	Swati Mishra, **R.K. Upadhyay (**2022) Spatial pattern formation and delay induced destabilization in predator-prey model with fear effect. *Mathematical Methods in the Applied Sciences*, Vol. 45 (11) 6801–6823. SCIE, IF-2.9, Rank: Q1
189.	S. Kundu, H. J. Alsakaji, F. A. Rihan, S. Maitra, **R.K. Upadhyay** (2022) Investigating the dynamics of a delayed stage-structured epidemic model with saturated incidence and treatment functions. *Eur. Phys. J. Plus* Vol. 137(9), pp.1-23. SCIE, IF-3.4, Rank: Q1
188.	X. L**i**, **R.K. Upadhyay,** Anwar, Zeb, Z. Zhang (2022) Global stability analysis and Hopf bifurcation of a delayed reversion class smoking model. *Fractals* Vol. 30(5), 2240165. SCIE, IF-4.7, Rank: Q1
187.	**R.K. Upadhyay**, D. Ghosh, M. A. Aziz-Alaoui, M. Uzuntarla (2022)(Editorial) Modeling brain function at the level of neurons and circuits via computational and data-driven approaches. Frontiers in Computational Neuroscience, Vol. 16, Article 965735. SCIE, IF-3.2, Rank: Q2
186.	**R. K. Upadhyay,** S. Acharya (2022) Modeling the transmission dynamics of a time delayed epidemic model with saturated treatment rate. *International Journal of Biomathematics* Vol. 16(7), 2250122, 1-34. SCIE, IF-2.2, Rank: Q3
2021	
185.	S. Mishra, **R.K. Upadhyay** (2021). Exploring the cascading effect of fear on the foraging activities of prey in a three species Agroecosystem. *Eur. Phys. J. Plus* Vol. 136(9), pp.1-36. SCI, IF-3.4, Rank: Q1
184.	Arnab Mondal, A. Mondal, S. K. Sharma, **R. K. Upadhyay**, C. G Antonopoulos (2021) Spatiotemporal characteristics in systems of diffusively coupled excitable slow–fast FitzHugh–Rinzel dynamical neurons. *Chaos* 31 (10), 103122. SCI, IF-2.9, Rank: Q1
183.	S. Batabyal, D. Jana, **R. K. Upadhyay** (2021) Diffusion driven finite time blow-up and pattern formation in a mutualistic preys-sexually reproductive predator system: A comparative study. *Chaos, Solitons and Fractals* Vol. 147, 110929, 1-27. SCI, IF-7.8, Rank: Q1
182.	Arnab Mondal, A. Mondal S. K. Sharma, **R.K. Upadhyay** (2021) Analysis of spatially extended excitable Izhikevich neuron model near instability. *Nonlinear Dynamics*, 105(4), 3515-3527. SCI, IF-5.6, Rank: Q1
181.	P. Das, **R. K. Upadhyay**, A. K. Mishra, F.A. Riham, P. Das, D. Ghosh (2021) Mathematical model of COVID-19 with comorbidity and controlling using non-pharmaceutical interventions and vaccination. *Nonlinear Dynamics Vol.* 106, pp.1213–1227. SCI, IF-5.6, Rank: Q1
180.	Z. Zhang, **R. K. Upadhyay** (2021) Dynamical analysis for a deterministic SVIRS epidemic model with Holling type II incidence rate and multiple delays. *Results in Physics* Vol. 24, Article No. 104181, pp. 1-13. SCI, IF-5.3, Rank: Q1
179.	S. Batabyal, D. Jana, R.D. Parshad, A. Al Basheer, **R. K. Upadhyay** (2021) Pattern formation in an explosive food chain model: the case of "apparent" mutualism. *Eur. Phys. J. Plus* Vol. 136 (4), pp.448-476. SCI, IF-3.4, Rank: Q1
178.	N.K. Thakur, A. Ojha, P.K. Tiwari, **R. K. Upadhyay** (2021) An investigation of delay induced stability transition in nutrient-plankton systems. *Chaos, Solitons and Fractals* Vol. 142, 110474, 1-18. SCI, IF-7.8, Rank: Q1
177.	S. Kumari, **R.K. Upadhyay**, P. Kumar, V. Rai (2021) Dynamics and patterns of species abundance in ocean: A mathematical modeling study. Nonlinear Analysis: Real world Applications Vol. 60, pp. 1-24. SCI, IF- 2.0, Rank: Q1
176.	S. Kumari, **R. K. Upadhyay** (2021) Exploring the behavior of malware propagation on mobile wireless sensor networks: Stability and Control Analysis. *Mathematics and Computers in Simulation*

	Vol. 190, pp. 246-249. SCIE, IF-4.6, Rank: Q1
175.	Y. Wang, A. Zeb, **R. K. Upadhyay**, A Pratap (2021) A delayed synthetic drug transmission model with two stages of addiction and Holling Type-II functional response. AIMS Mathematics Vol. 6 (1), pp. 1-22. SCIE, IF- 2.2, Rank: Q1.
174.	A. Mondal, K.C. Mistri, M.A. Aziz-Alaoui, **R.K. Upadhyay** (2021) An analytical scheme on complete integrability of 2D biophysical excitable systems. *Physica A: Statistical Mechanics and its Applications* Vol. 573, 125924.pp. 1-7. SCI, IF- 3.3, Rank: Q1
173.	S. K. Sharma, Arnab Mondal, A. Mondal, **R.K. Upadhyay,** Jun Ma (2021) Synchronization and pattern formation in a memristive diffusive neuron model. *International Journal of Bifurcation and chaos* Vol.31(11), pp. 2130030. SCI, IF- 2.2, Rank: Q2
172.	C. Paul, Argha Mondal, G.K. Vishwakarma, **R.K. Upadhyay** (2021) Parameter estimation in a spiking-bursting H-R neural model with random fluctuation. *Differential Equations and Dynamical Systems* Vol. 29, pp. 857 – 869. ESCI, IF- 1.0, Rank: Q3
171.	**R.K. Upadhyay** (2021) Special Issue on Nonlinear Models in Biosignaling, Biosensor and Neural Systems-Modeling, Simulations and Applications. *Differential Equations and Dynamical Systems*. Vol. **29**, pp.749–750. ESCI, IF- 1.0, Rank:Q3
170.	S. Kumari, **R.K. Upadhyay** (2021) Exploring the Dynamics of a Malware Propagation Model and Its Control Strategy. *Wireless Personal Communications* Vol. 121(3), pp 1945–1978. SCIE, IF- 2.2, Rank: Q3
169.	**R.K. Upadhyay** (2021) Conserving the European Bonelli's eagle in spatiotemporal domain: Lesson from its feeding pattern. *Computer and Mathematical Methods* Vol. 3(5), e1181, pp. 1-20.
2020	
168.	P. Das, **R. K. Upadhyay**, P. Das, D. Ghosh (2020) Exploring dynamical complexity in a time-delayed tumor-immune model. *Chaos* Vol 30(12), Article No. 123118. SCI, IF-2.9, Rank: Q1
167.	Z. Zhang, J. Zou, R. K. Upadhyay, Ghaus ur Rahman (2020) An epidemic model with multiple delays for the propagation of worms in wireless sensor networks. Results in Physics Vol. 19, Article No. 103424, pp. 1-21. SCI, IF-5.3, Rank: Q1
166.	Z. Zhang, J. Zou, R. K. Upadhyay (2020) Stability and Hopf bifurcation of a delayed giving up smoking model with harmonic mean type incidence rate and relapse. *Results in Physics* Vol. 19, Article No. 103619, pp. 1-27. SCI, IF-5.3, Rank: Q1
165.	**R. K. Upadhyay**, S. Chatterjee, S. Saha, R.K. Azad (2020) Age-group targeted testing for COVID-19 as new prevention strategy. *Nonlinear Dynamics* Vol. 101(3), pp. 1921–1932. SCI, IF-5.6, Rank: Q1
164.	J. Zou, **R. K. Upadhyay**, A. Pratap, Z. Zhang (2020) Dynamics of a delayed SIR model for the transmission of PRRSV among a swine population. *Advances in Difference Equations* Vol. 351, pp. 1-30. SCIE, IF-4.1, Rank: Q1
163.	Z. Zhang, J. Zou, **R. K. Upadhyay,** A. Pratap (2020) Stability and Hopf bifurcation analysis of a delayed tobacco smoking model containing snuffing class. *Advances in Difference Equations* Vol. 349, pp. 1-19. SCIE, IF-4.1, Rank: Q1
162.	P. Das, S. Das, **R. K. Upadhyay**, P. Das (2020) Optimal treatment strategies for delayed cancer-immune system with multiple therapeutic approach. *Chaos, Solitons and Fractals Vol.* 136, 109806. SCI, IF-7.8, Rank: Q1

161.	V. Tiwari, J. P. Tripathi, **R. K. Upadhyay**, Y.-P. Wu, J-S. Wang, G.-Q. Sun (2020) A predator-prey interaction system with mutually interfering predator: the role of feedback controls. *Applied Mathematical Modelling* Vol. 87, 222-244. SCIE, IF-5.0, Rank: Q1
160.	N.K. Thakur, A. Ojha, D. Jana, **R. K. Upadhyay** (2020) Modeling the plankton–fish dynamics with top predator interference and multiple gestation delays. *Nonlinear Dynamics* Vol. 100(4), pp. 4003–4029. SCI, IF-5.6, Rank: Q1
159.	V. Tiwari, J. P Tripathi, S. Mishra, **R. K. Upadhyay** (2020) Modeling the fear effect and stability of non-equilibrium patterns in mutually interfering predator-prey systems. *Applied Mathematics and Computation* Vol. 371, pp. 1-23. Article 124948. SCI, IF- 4.0, Rank: Q1
158.	Sarita Kumari, **R. K. Upadhyay** (2020) Dynamics comparison between non-spatial and spatial systems of the plankton-fish interaction model. *Nonlinear Dynamics* Vol. 99(3), pp. 2479–2503. SCI, IF-5.6, Rank: Q1
157.	D. Jana, **R. K. Upadhyay**, R. Agrawal, R. D. Parshad, A. Basheer (2020) Explosive tritrophic food chain models with interference: A comparative study. *Journal of Franklin Institute-Engineering and Applied Mathematics* Vol. 357, 385–413. SCIE, IF- 4.1, Rank: Q1
156.	Swati Mishra, **R. K. Upadhyay** (2020) Strategies for the existence of spatial patterns in predator–prey communities generated by cross-diffusion. *Nonlinear Analysis: Real World Applications* Vol. 51, pp. Article 103018. SCI, IF- 2.0, Rank: Q1
155.	V. Tiwari, J. P Tripathi, D. Jana, S.K. Tiwari, **R. K. Upadhyay** (2020) Exploring Complex dynamics of spatial predator-prey system: Role of predator's interference and additional food. *International Journal of Bifurcation and chaos* Vol. 30(7), pp 2050102-26. SCI, IF- 2.2, Rank: Q2
154.	S.K. Sharma, A. Mondal, A. Mondal, **R. K. Upadhyay**, C. Hens (2020) Emergence of bursting in a network of memory dependent excitable and spiking leech-heart neurons. *Journal of the Royal Society Interface* Vol. 17(167) 20190859. pp. 1-13. SCIE, IF-3.9, Rank: Q1
153.	**R.K. Upadhyay**, Prerna Singh (2020) Modeling and control of computer virus attack on a targeted Network. *Physica A: Statistical Mechanics and its Applications* Vol. 538, pp. 1-16. Article 122617. SCI, IF- 3.3, Rank: Q1
152.	P. Roy, **R. K. Upadhyay**, Jasmine Caur (2020) Modeling Zika transmission dynamics: Prevention and control. *Journal of Biological Systems*. Vol. 28(3), PP. 719-749. SCIE, IF- 1.6, Rank: Q3
151.	S. Saha, G. Gangopadhyay, S. Kumari, **R. K. Upadhyay** (2020) Parametric Excitation and Hopf-Bifurcation Analysis of a Time Delayed Nonlinear Feedback Oscillator. Int. J. Appl. Comput. Math. Vol. 6(6), Article No. 173, 1-21. Scopus indexed
2019	
150.	Argha Mondal, S.K. Sharma, **R. K. Upadhyay**, Arnab Mondal (2019) Firing activities of a fractional-order FitzHugh-Rinzel bursting neuron model and its coupled dynamics. *Scientific Reports, Nature* Volume 9(1), pp. 1-11, Article 15721. SCIE, IF-4.6, Rank: Q1
149.	Jyotiska Datta, Debaldev Jana, **R. K. Upadhyay** (2019) Bifurcation and Bio-Economic analysis of a prey-generalist predator model with Holling type IV functional response and nonlinear age-selective prey harvesting. *Chaos, Solitons and Fractals Vol.* 122, 229-235. SCI, IF-7.8, Rank: Q1
148.	Z. Zhang, S. Kumari, **R.K. Upadhyay** (2019) A delayed e-epidemic SLBS model for computer virus. *Advances in Difference Equations* Vol. 414, pp. 1-24. SCIE, IF-4.1, Rank: Q1
147.	A. Mondal, S. K. Sharma, **R. K. Upadhyay**, M. A. Aziz-Alaoui, P. Kundu, C. Hens (2019) Diffusion dynamics of a conductance-based neuronal population. *Physical Review* E 99, 042307. SCI, IF- 2.4, Rank: Q1

146.	**R. K. Upadhyay**, S. Kumari (2019) Discrete and data packet delays as determinants of switching stability in wireless sensor networks. *Applied Mathematical Modelling* Vol. 72, 513-536. SCI, IF-5.0, Rank: Q1
145.	**R.K. Upadhyay**, A.K. Pal, S. Kumari, P. Roy ((2019) Dynamics of an SEIR epidemic model with Nonlinear incidence and treatment rates. *Nonlinear Dynamics* Vol. 96(4), pp. 2351-2368. SCI, IF- 5.6, Rank: Q1
144.	S. Kumari, Prerna Singh, **R.K. Upadhyay (**2019) Virus dynamics of a distributed attack on a targeted network: Effect of firewall and optimal control. *Commun. Nonlinear Sci. Numer. Simulat.*Vol.73, pp.74-91. SCIE, IF-3.9, Rank: Q1
143.	Renu Verma, SP Tiwari, **R. K. Upadhyay (**2019) Transmission dynamics of epidemic spread and outbreak of Ebola in West Africa: fuzzy modeling and simulation. *Journal of Applied Mathematics and Computing* Vol. 60 (1-2), pp. 637-671. SCIE, IF-2.2, Rank: Q1
142.	**R.K. Upadhyay**, R.D. Parshad, K. Antwi-Fordjour, E. Quansah, Sarita Kumari (2019) Global dynamics of stochastic predator–prey model with mutual interference and prey defense. *Journal of Applied Mathematics and Computing*, Vol. 60 (1–2), pp. 169–190. SCIE, IF-2.2, Rank: Q1
141.	M. Dhar, Shilpa Samaddar, P. Bhattacharya, **R.K. Upadhyay** (2019) Viral dynamic model with cellular immune response: A case study of HIV-1 infected humanized mice. *Physica A: Statistical Mechanics and its Applications* Vol. 524, pp. 1-14. SCI, IF- 3.3, Rank: Q1
140.	A. Mondal, **R. K. Upadhyay**, Jun Ma, B.K. Yadav, S.K. Sharma, Arnab Mondal (2019) Bifurcation analysis and diverse firing activities of a modified excitable neuron model. *Cognitive Neurodynamics* Vol. 13, pp. 393-407. SCIE, IF-3.7, Rank: Q2
139.	Z. Zhang, Y. Chu, S. Kumari, **R.K. Upadhyay** (2019) Delay dynamics of worm propagation model with non-linear incidence rates in wireless sensor network. *Journal of Zhejiang University* Science Edition Vol. 46 No. 2, pp. 168-189. SCOPUS
138.	**R. K. Upadhyay**, Sarita Kumari, Pramod Kumar, Vikas Rai (2019) Spatial distribution of microalgae in marine systems: A reaction–diffusion model. *Ecological complexity* 39, 100771. SCIE, IF- 3.5, Rank: Q2
137.	**R. K. Upadhyay,** Swati Mishra, Y. Dong, Yasuhiro Takeuchi (2019) Exploring the dynamics of a tritrophic food chain model with multiple gestation periods. *Mathematical Biosciences and Engineering* Vol. 16(5), pp. 4660–4691. SCIE, IF-2.6, Rank: Q2
136.	**R.K. Upadhyay**, Swati Mishra (2019) Population dynamic consequences of fearful prey in a spatiotemporal predator-prey system. *Mathematical Biosciences and Engineering*. Vol. 16(1), pp.338–372. SCIE, IF-2.6, Rank: Q2
	2018
135.	W.W. Teka, **R.K. Upadhyay**, A. Mondal (2018) Spiking and bursting patterns of fractional-order Izhikevich model. *Commun. Nonlinear Science Numerical Simulation*, Vol. 56, pp. 161–176. SCIE, IF-3.9, Rank: Q1
134.	**R.K. Upadhyay,** C. Paul, Argha Mondal, G.K. Vishwakarma (2018) Estimation of biophysical parameters in a neuron model under random fluctuations. *Applied Mathematics and Computation* Vol. 329, pp. 364-373. SCIE, IF- 4.0, Rank: Q1
133.	Z. Zhang, **R.K. Upadhyay,** J. Datta (2018) Bifurcation analysis of a modified Leslie–Gower model with Holling type-IV functional response and nonlinear prey harvesting. *Advances in Difference Equations* Vol. 127, pp. 1-21. SCIE, IF- 4.1, Rank: Q1

132.	Tao Zhao, Z. Zhang, **R.K. Upadhyay** (2018) Delay-induced Hopf bifurcation of an SVEIR computer virus model with nonlinear incidence rate. *Advances in Difference Equations* Vol. 256, pp. 1-21. SCIE, IF-4.1, Rank: Q1
131.	Argha Mondal, **R. K. Upadhyay**, Arnab Mondal, S. K. Sharma (2018) Dynamics of a modified excitable neuron model: Diffusive instabilities & traveling wave solutions. *Chaos* Vol.28, pp. 1131041-14. SCI, IF- 2.9, Rank: Q1
130.	Argha Mondal, **R. K. Upadhyay** (2018) Diverse neuronal responses of a Fractional-order Izhikevich model: Journey from chattering to fast spiking. *Nonlinear Dynamics* Vol. 91(2), pp. 1275–1288. SCI, IF-5.6, Rank: Q1
129.	**R.K. Upadhyay**, Sangeeta Kumari (2018) Bifurcation analysis of an e-epidemic model in wireless sensor network. *International Journal of Computer Mathematics* Vol. 95(9), pp. 1775-1805. SCIE, IF- 1.8, Rank: Q2
128.	**R. K. Upadhyay**, Jyotiska Datta, Y. Dong, Yasuhiro Takeuchi (2018) Emergence of spatial patterns in a damaged diffusive eco-epidemiological system. *International Journal of Bifurcation and chaos* Vol.28(9), pp.1830028-24. SCI, IF- 2.2, Rank: Q2
127.	**R.K. Upadhyay,** Sangeeta Kumari (2018) Detecting malicious chaotic signals in Wireless Sensor Network. *Physica A: Statistical Mechanics and its Applications*, Vol. 492 pp. 1129–1152. SCI, IF- 3.3, Rank: Q1
126.	Z. Zhang, **R.K. Upadhyay,** R. Agrawal, J. Datta (2018) The Gestation delay: A factor causing complex dynamics in Gause-type competition models. *Complexity* Vol. 2018, 1-21. Article ID 1589310. SCIE, IF-2.3, Rank: Q2
125.	Z. Zhang, **R. K. Upadhyay**, D. Bi, Rowley (2018) Stability and Hopf Bifurcation of a Delayed Epidemic Model of Computer Virus with Impact of Antivirus Software. *Discrete Dynamics in Nature and Society* Vol. 2018, 1-18, Article ID 8239823. SCIE, IF- 1.4, Rank: Q2
124.	A. Al. Basheer, Rana, D. Parshad, E. Quansah, S. Yu, **R. K. Upadhyay** (2018) Exploring the dynamics of a Holling–Tanner model with cannibalism in both predator and prey population. *International Journal of Biomathematics*, Vol. 11(1), pp. 1850010 -29. SCIE, IF- 2.2, Rank: Q3
123.	R. Agrawal, D. Jana, **R.K. Upadhyay**, V. Sree Hari Rao (2018) Dynamic relationship between mutual interference and gestation delay of a hybrid tri-trophic food chain model. *ANZIAM Journal* Vol. 59(3), pp. 370-401. SCIE, IF- 0.9, Rank: Q3
122.	**R. K. Upadhyay**, Sarita Kumari, Sangeeta Kumari, V. Rai (2018) Salton Sea: An Ecosystem in Crisis. *International Journal of Biomathematics* Vol.11(8),1850114. SCIE, IF- 2.2, Rank: Q3
121.	**R.K. Upadhyay**, Sangeeta Kumari (2018) Global stability of worm propagation model with nonlinear incidence rate in Computer network. *International Journal of Network Security* Vol. 20(3), pp. 515-526.
120.	Renu Verma, S.P. Tiwari, **R.K. Upadhyay (**2018) Fuzzy modeling for the spread of influenza virus and its possible control. *Computational Ecology and Software* Vol. 8(1), pp. 32-45.
2017	
119.	**R.K. Upadhyay,** S.K. Tiwari (2017) Ecological Chaos and the Choice of Optimal Harvesting Policy. *Journal of Math. Analysis and Applications* Vol. 448, pp.1533-1559. SCI, IF- 1.3, Rank: Q1
118.	**R. K. Upadhyay,** Sangeeta Kumari, A.K. Mishra (2017) Modeling the virus dynamics in computer network with SVEIR model and nonlinear incidence rate. *Journal of Applied Mathematics and computating* Vol. 54, 485-509. SCIE, IF-2.2, Rank: Q1

117.	W.W. Teka, **R. K. Upadhyay,** A. Mondal (2017) Fractional–order leaky integrate-and–fire model with long-term memory and power low dynamics. *Neural Networks* Vol. 93, pp.110-125. SCI, IF- 7.8, Rank: Q1
116.	**R.K. Upadhyay,** A. Mondal, M.A. Aziz Alaoui (2017) Synchronization analysis through coupling mechanism in realistic neural models. *Applied Mathematical Modelling* Vol. 44, pp.557-575. SCIE, IF- 5.0, Rank: Q1
115.	**R. K. Upadhyay**, Argha Mondal, W.W. Teka (2017) Fractional-order excitable neural system with bidirectional coupling. *Nonlinear Dynamics* Vol. 87(4), pp. 2219-2233. SCI, IF- 5.6, Rank: Q1
114.	**R.K. Upadhyay,** Argha Mondal (2017) Synchronization of bursting neurons with a slowly varying d. c. current. *Chaos Solitons & Fractals* Vol. 99, pp.195-208. SCI, IF- 7.8, Rank: Q1
113.	R. Agrawal, D. Jana, **R.K. Upadhyay**, V. Sree Hari Rao (2017) Complex dynamics of sexually reproductive generalist predator and gestation delay in a food chain model: double Hopf-bifurcation to Chaos. *Journal of Applied Mathematics and Computing* Vol. 55, pp. 513-547. SCIE, IF-2.2, Rank: Q1
112.	**R. K. Upadhyay**, Argha Mondal, W.W. Teka (2017) Mixed model oscillations and synchronous activity of noise induced M-L model. *International Journal of Bifurcation and chaos* Vol. 27(5), pp.1730019-64. SCI, IF- 2.2, Rank: Q2
111.	A. Mondal, **R.K. Upadhyay (**2017) Dynamics of a modified Hindmarsh-Rose neural model with random perturbations: Moment analysis and firing activities. *Physica A: Statistical Mechanics and its Applications* Vol. 486, pp. 144-160. SCI, IF- 3.3, Rank: Q1
110.	**R. K. Upadhyay,** Swati Mishra, R.D. Parshad, J. Lyu, A. Al. Basheer (2017) Investigation of an explosive food chain model with interference and inhibitory effects. *IMA Journal of Applied Mathematics* Vol. 82, pp. 1209–1237. SCI, IF- 1.2, Rank: Q3
109.	R.D. Parshad, S. Bhowmick, E. Quanshah, R. Agrawal, **R.K. Upadhyay** (2017) Finite time blow up in a delayed diffusive population model with competitive interference. *International Journal of Nonlinear Science and Numerical Simulations* Vol. 18(5), pp. 435-450. SCIE, IF-1.5, Rank: Q2
108.	R.D. Parshad, **R. K. Upadhyay,** S. Mishra, S.K. Tiwari, S. Sharma (2017) On the explosive instability in a three species food chain model with modified Holling type IV functional response. *Mathematical Methods in the Applied Sciences* Vol. 40(16), pp.5707–5726. SCIE, IF- 2.9, Rank: Q1
107.	S.K. Tiwari, **R. K. Upadhyay (**2017) Conservation of degraded wetland system of Keoladeo National Park, Bharatpur, India. *Ecological Complexity* Vol. 32, pp. 74-89. SCIE, IF- 3.5, Rank: Q2
106.	N.K. Thakur, S.K. Tiwari, B. Dubey, **R.K. Upadhyay (**2017) Diffusive three species plankton model in the presence of toxic prey: Application to Sundarban mangrove wetland. *Journal of Biological Systems* Vol. 25(2), pp. 185-206. SCIE, IF- 1.6, Rank: Q3
105.	P. Roy, **R. K. Upadhyay (**2017) Spatiotemporal transmission dynamics of recent Ebola outbreak in Sierra Leone, West Africa: Impact of control measures. *Journal of Biological Systems* Vol. 25(3), pp. 1-29. SCIE, IF- 1.6, Rank: Q3
104.	N.K. Thakur, Rashi Gupta, **R.K. Upadhyay (**2017) Complex dynamics of diffusive predator-prey system with BD functional response: The role of prey–taxis. *Asian-European Journal of Mathematics* Vol. 10(2), pp. 1750047-62. ESCI, IF- 0.8, Rank: NO
103.	Kusum Lata, A.K. Misra, **R. K. Upadhyay (**2017) A mathematical model for the conservation of forestry resources with two discrete time delays. *Modeling Earth Systems and Environment* Vol. 3(3), pp. 1011-1027.
2016	

102.	D. Jana, R. Agrawal, **R.K. Upadhyay,** G. P. Samanta (2016) Ecological dynamics of Age selective harvesting of Fish population: MSY and its Control strategies. *Chaos, Solitons & Fractals* Vol. 93, pp. 111-122. SCI, IF- 7.8, Rank: Q1
101.	R.D. Parshad, S. Bhowmick, E. Quansah, A. Basheer, **R.K. Upadhyay (**2016) Predator interference effects on biological control: The "paradox" of the generalist predator revisited. *Communications in Nonlinear Science and Numerical Simulation* Vol. 39, pp.169-184. SCIE, IF- 3.9, Rank: Q1
100.	Rana D. Parshad, E. Quansah, K. Black, **R.K. Upadhyay**, S.K. Tiwari, Nitu Kumari (2016) Long time dynamics of a three-species food chain model with Allee effect in the top predator. *Computers and Mathematics with Applications* Vol. 71, pp 503-528. SCI, IF- 2.9, Rank: Q1
99.	**R.K. Upadhyay,** Rashmi Agrawal (2016) Dynamics and responses of a predator-prey system with competitive interference and time delay. *Nonlinear Dynamics* Vol. 83, pp. 821-837. SCI, IF- 5.6, Rank: Q1
98.	**R.K. Upadhyay,** Argha Mondal, C. Paul (2016) A method for estimation of parameters in a neural model with noisy measurements. *Nonlinear Dynamics* Vol. 85(4), pp. 2521–2533. SCI, IF- 5.6, Rank: Q1
97.	**R.K. Upadhyay,** Parimita Roy (2016) Disease Spread and its Effect on Population Dynamics in Heterogeneous Environment. *International Journal of Bifurcation and chaos* Vol. 26(1), pp. 16500041-28. SCI, IF- 2.2, Rank: Q2
96.	**R.K. Upadhyay,** Parimita Roy (2016) Deciphering dynamics of recent epidemic spread and outbreak in West Africa: The case of Ebola virus. *International Journal of Bifurcation and chaos* Vol. 26(9), pp.1630024-49. SCI, IF- 2.2, Rank: Q1
95.	**R.K. Upadhyay,** Parimita Roy, C. Venkataraman, A. Madzvamuse (2016) Wave of Chaos in a spatial eco-epidemiological system: Generating realistic patterns of patchiness in Rabbit-Lynx dynamics. *Mathematical Biosciences* Vol. 281, pp. 98-119. SCI, IF- 4.3, Rank: Q1
94.	Parimita Roy**, R.K. Upadhyay (**2016) Assessment of Rabbit Hemorrhagic disease in controlling the population of Red fox: A measure to preserve endangered species in Australia. *Ecological Complexity* Vol. 26, pp. 6-20. SCIE, IF- 3.5, Rank: Q2
93.	N.K. Thakur, S.K. Tiwari, **R.K. Upadhyay (**2016) Harmful Algal blooms in fresh and marine water systems: The role of toxin producing phytoplankton. *International journal of Biomathematics* Vol. 9(3), pp. 165004311-20. SCIE, IF- 2.2, Rank: Q3
92.	**R.K. Upadhyay,** Parimita Roy, S.K Tiwari, (2016), Complex dynamics of food chain models and biology of the top predator. *Journal of Nonlinear Systems and Applications*, Watam, France. Vol. 5(1), pp. 1-14.
91.	**R.K. Upadhyay,** M.A. Aziz-Alaoui, Argha Mondal (2016) Signals and Systems in Learning and Memory. *Journal of Nonlinear Systems and Applications*, Watam, France, Vol. 5(2), pp. 66-77.
90.	E. Quansah, R.D. Parshad, S. Mondal, **R.K. Upadhyay (**2016) Can the control of invasive species be left to chance? *Natural Resources & Engineering* Vol. 1(1), pp. 13-25. Taylor & Francis, USA.
	2015
89.	Debaldev Jana, Rashmi Agrawal, **R.K. Upadhyay (**2015) Dynamics of generalist predator in a stochastic environment: Effect of delayed growth and prey refuge. *Applied Mathematics and Computation* Vol. 268, pp. 1072-1094. SCIE, IF-4.0, Rank: Q1
88.	**R. K. Upadhyay**, Parimita Roy, Jyotiska Datta (2015) Complex dynamics of ecological systems under nonlinear harvesting: Hopf bifurcation and Turing instability. *Nonlinear Dynamics* Vol. 79(4), pp. 2251-2270. SCI, IF-5.6, Rank: Q1
87.	**R.K. Upadhyay,** Rashmi Agarwal (2015) Modeling the effect of mutual interference in a delay-induced predator-prey system. *Journal of Applied Mathematics and Computing* Vol. 49, pp. 13-39.

	SCIE, IF- 2.2, Rank: Q1
86.	**R.K. Upadhyay,** S.K Tiwari, Parimita Roy (2015) Complex dynamics of wetland ecosystem with nonlinear harvesting: Application to Chilika Lake in Odisha, India. *International Journal of Bifurcation and Chaos* Vol. 25 (7), pp.15400161-25. SCI, IF- 2.2, Rank: Q2
85.	Parimita Roy, **R.K. Upadhyay (**2015) Conservation of Iberian Lynx in Europe: Issues and Challenges. *Ecological Complexity* Vol. 22 (4), pp. 16–31. SCIE, IF- 3.5, Rank: Q2
84.	**R.K. Upadhyay,** Argha Mondal (2015) Dynamics of fractional order Modified Morris Lecar neural model. *Network Biology* Vol. 5(3), pp.113-136.
83.	B. Dubey, J. Hussain, S.N. Raw, **R.K. Upadhyay (**2015) Modeling the effect of pollution on biological species: A socio-ecological problem. *Computational Ecology and Software* Vol. 5(2), pp. 152-174.
82.	N.K. Thakur, R. Gupta, **R.K. Upadhyay (**2015) Turing and Non-Turing patterns in diffusive plankton model. *Computational Ecology and Software* Vol. 5(1), pp. 17-27.
	2014
81.	**R. K. Upadhyay**, P. Roy (2014) Spread of disease and its effect on population dynamics in an eco-epidemiological system. *Communication in Nonlinear Science and Numerical Simulations* Vol. 19, pp. 4170-4184. SCIE, IF- 3.9, Rank: Q1
80.	D. Jana, Rashmi Agrawal, **R.K. Upadhyay (**2014) Top-predator interference and gestation delay as determinants of the dynamics of a realistic model food chain. *Chaos, Solitons & Fractals* Vol. 69, pp.50–63. SCI, IF-7.8, Rank: Q1
79.	**R. K. Upadhyay**, P. Roy, Vikas Rai (2014) Deciphering dynamics of Epidemic spread: The case of influenza virus. *International Journal of Bifurcation and chaos* Vol. 24 (5), pp.14500641-31. SCI, IF- 2.2, Rank: Q2
78.	**R. K. Upadhyay,** Vikas Rai, S. K. Tiwari (2014) Modeling Wetland Systems of Keoladeo National Park (KNP), India: the Role of Space. *Wetlands Ecology & Management* Vol. 22, pp. 605-624. SCIE, IF- 1.8, Rank: Q3
77.	**R.K. Upadhyay**, A. Patra, B. Dubey, N.K. Thakur (2014) A predator-prey interaction model with self and cross diffusion in aquatic systems. *Journal of Biological Systems* Vol. 22 (4), pp. 691–712. SCIE, IF- 1.6, Rank: Q3
76.	B. Dubey, A. Patra, **R. K. Upadhyay (**2014) Dynamics of phytoplankton, zooplankton and fishery resource model. *Applications and Applied Mathematics: An international journal* Vol. 9(1), pp. 217-245. ESCI, Scopus indexed.
	2013
75.	**R.K. Upadhyay,** R.K. Naji, S.N. Raw, B. Dubey (2013) The role of top predator interference on the dynamics of a food chain model. *Communication in Nonlinear Science and Numerical Simulations* Vol. 18, pp. 757-768. SCIE, IF-3.9, Rank: Q1
74.	S. Yan, X. Lian, W. Wang, **R. K. Upadhyay (**2013) Spatiotemporal dynamics in a delayed diffusive predator model. *Applied Mathematics & Computation* Vol. 224, pp.524-534. SCIE, IF-4.0, Rank: Q1
73.	**R. K. Upadhyay**, S. N. Raw, P. Roy, Vikas Rai (2013) Restoration and recovery of damaged eco-epidemiological systems: Application to the, Salton Sea, California, USA. *Mathematical Biosciences* Vol. 242 (2), pp. 172-187. SCI, IF-4.3, Rank: Q1
72.	**R. K. Upadhyay**, S. K. Tiwari (2013) Emergence of Spatial Patterns in a simple Model of Wetland Ecosystem: Application to Keoladeo National Park (KNP), India. *Journal of Biodiversity Management and Forestry* Vol.2(4), pp.1-16.
71.	D. Jana, N. Bairagi, R. Agrawal, **R. K. Upadhyay (**2013) Modeling the effect of gestation delay of

	predator on the stability of bifurcating periodic solutions in wetland ecosystem. *Journal of Ecology* Vol. 107, pp.175-189.
70.	R. D. Parshad, H.A. Abderrahmane, **R. K. Upadhyay**, N. Kumari (2013) Finite Time Blow up in a Realistic Food-Chain Model. *ISRN Biomathematics* Vol. 2013, 424062, pp. 1-12.
	2012
69.	V. Rai**, R.K. Upadhyay,** N.K. Thakur (2012) Complex population dynamics in heterogeneous Environments: Effects of Random and Directed animal movements. *Intl. J. Nonlinear Science and Numerical Simul.* Vol. 13(3-4), pp. 299-309. SCIE, IF-1.5, Rank: Q2
68.	**R. K. Upadhyay,** V. Volpert, N. K. Thakur (2012) Propagation of Turing patterns in a plankton model. *Journal of Biological Dynamics* Vol 6(2), pp. 524-538. SCIE, IF- 2.8, Rank: Q2
67.	V. Rai, S.R. Nadar, **R.K. Upadhyay (**2012) Nonlinear Phenomena in Biology and Medicine. *Computational. & Mathematical. Methods in Medicine* Vol. 2012, 183879, pp. 1-2. SCIE, IF-1.7, Rank: Q3
66.	W. Wang, Z. Guo, **R.K. Upadhyay**, Y. Lin (2012) Pattern formation in a cross-diffusive Holling–Tanner Model. *Discrete Dynamics in Nature and Society* Vol. 2012, 828219, pp. 1-12. SCIE, IF- 1.4, Rank: Q2
65.	**R. K. Upadhyay,** N. K. Thakur (2012) Spatiotemporal pattern induced by self and cross- diffusion in a spatial Holling- Tanner model. *Computational Ecology and Software* Vol. 2(1), pp. 1-25.
64.	R.D. Parshad, **R.K. Upadhyay,** N. K. Thakur (2012) On the well posedness and further regularity of a diffusive three species aquatic model. *Applied Mathematical Sciences*, Vol. 6(13), pp. 597 – 619.
	2011
63.	**R. K. Upadhyay,** V. Rai, S.N. Raw (2011) Challenges of living in the harsh environments: A mathematical modeling study. *Applied Mathematics and Computation* Vol. 217, pp. 10105-10117. SCIE, IF- 4.0, Rank: Q1
62.	**R. K. Upadhyay,** S.N. Raw (2011) Complex dynamics of a three species food-chain model with Holling type IV functional response. *Nonlinear Analysis: Modelling and Control* Vol. 16(3), pp. 353–374. SCIE, IF-2.0, Rank: Q1
61.	**R. K. Upadhyay,** Malay Banerjee, Rana D. Parshad, S.N. Raw (2011) Deterministic chaos versus stochastic oscillation in a prey-predator-top predator model. *Mathematical Modelling and Analysis* Vol. 16(3), pp. 343–364. SCIE, IF- 1.8, Rank: Q1
60.	**R. K. Upadhyay,** N.K. Thakur, V. Rai (2011) Diffusion-driven instabilities and spatiotemporal patterns in an aquatic predator-prey system with Beddington-DeAngelis type functional response. *International Journal of Bifurcation and chaos* Vol. 21(3), pp. 663-684. SCI, IF- 2.2, Rank: Q2
59.	Vikas Rai, **R. K. Upadhyay**, S. N. Raw, Nitu Kumari (2011) Some aspects of animal behavior and community dynamics. *Computational Ecology and Software* Vol. 1(3), pp.153-182.
	2010
58.	R.K. Naji, **R. K. Upadhyay,** Vikas Rai (2010) Dynamical consequences of predator interference in a tri-trophic model food chain. *Nonlinear Analysis: Real world Applications* Vol. 11(2), pp. 809-818. SCIE, IF-2.0, Rank: Q1
57.	**R.K. Upadhyay**, S.N. Raw, Vikas Rai (2010) Dynamical complexities in a tri-trophic hybrid food chain model with Holling type II and Crowley–Martin functional responses. *Nonlinear Analysis: Modelling and Control* Vol. 15(3), pp. 361-375. SCIE, IF-2.0, Rank: Q2
56.	Xiang-Jun Wu, Jie Li, **R.K. Upadhyay (**2010) Chaos control and Synchronization of a three-species food chain model via Holling functional response. *International Journal of Computer Mathematics* Vol. 87(1), pp. 199-214. SCIE, IF- 1.8, Rank: Q2
55.	**R. K. Upadhyay**, W. Wang, N.K. Thakur (2010) Spatiotemporal dynamics in a spatial plankton

	system. *Mathematical modelling of Natural Phenomena* Vol. 5(5), pp. 101-121. SCIE, IF- 2.2, Rank: Q1
54.	**R.K. Upadhyay**, Nitu Kumari, Vikas Rai (2010) Modelling spatiotemporal dynamics of Vole population in Europe and America. *Math. Biosci.* Vol. 223 (1), pp. 47-57. SCI, IF- 4.3, Rank: Q1
53.	Rana D. Parshad, **R. K. Upadhyay (**2010) Investigation of long-time dynamics of a diffusive three species aquatic model. *Dynamics of Partial Differential Equations* Vol. 7(3), pp. 217-244. SCIE, IF- 1.3, Rank: Q3
52.	**R.K. Upadhyay,** N.K. Thakur, Balram Dubey (2010) Nonlinear Non-equilibrium pattern formation in a spatial aquatic system: Effect of fish predation. *Journal of Biological Systems* Vol.18(1), pp. 129-159. SCIE, IF-1.6, Rank: Q3
2009	
51.	**R.K. Upadhyay (**2009) Dynamics of an ecological model living on the Edge of Chaos. *Applied Mathematics and Computation* Vol. 210, 455-464. SCIE, IF-4.0, Rank: Q1
50.	**R.K. Upadhyay,** R.K. Naji (2009) Dynamics of a three species food chain model with Crowley-Martin type functional response. *Chaos Solitons and Fractals* Vol. 42(3), pp. 1337-1346. SCI, IF-7.8, Rank: Q1
49.	**R. K. Upadhyay,** V. Sree Hari Rao (2009) Short-term Recurrent Chaos and Role of Toxin Producing Phytoplankton (TPP) on Chaotic Dynamics in Aquatic Systems. *Chaos Solitons and Fractals* Vol. 39, pp.1550-1564. SCI, IF-7.8, Rank: Q1
48.	**R.K. Upadhyay**, Nitu Kumari, Vikas Rai (2009) Wave of chaos in a diffusive system: Generating realistic patterns of patchiness in plankton-fish dynamics. *Chaos Solitons & Fractals* Vol. 40(1), pp. 262-276. SCI, IF-7.8, Rank: Q1
47.	**R. K. Upadhyay,** Vikas Rai (2009) Complex dynamics and synchronization in two non-identical chaotic ecological systems. *Chaos Solitons & Fractals* Vol. 40, pp. 2233-2241. SCI, IF-7.8, Rank: Q1
46.	**R.K. Upadhyay**, Nitu Kumari, Vikas Rai (2009) Exploring dynamical complexity in diffusion driven predator-prey systems: Effect of toxin production by phytoplankton and spatial heterogeneities. *Chaos Solitons & Fractals* Vol. 42(1), pp. 584-594. SCI, IF-7.8, Rank: Q1
45.	Balram Dubey, Nitu Kumari, **R.K. Upadhyay (**2009) Spatiotemporal pattern formation in a diffusive predator-prey system: An analytical Approach. *Journal of Applied Mathematics and Computing* Vol. 31, pp. 413-432. SCIE, IF-2.2, Rank: Q1
44.	**R.K. Upadhyay, [Review Article] (**2009) Observability of chaos and cycles in ecological systems: lessons from Predator-prey models. *International Journal of Bifurcation and Chaos* Vol. 19, No.10, pp. 3169-3234. SCI, IF- 2.2, Rank: Q2
43.	**R.K. Upadhyay**, Nitu Kumari, Vikas Rai (2009) Wave phenomena and Edge of chaos in a predator-prey system under Allee effect. *Differential Equation and Dynamical Systems* Vol. 17(3), pp. 301-317. ESCI, IF- 1.0, Rank: Q3
2008	
42.	**R. K. Upadhyay**, N. Bairagi, K. Kundu, J. Chattopadhyay (2008) Chaos in Eco-epidemiological problem of Salton Sea & its possible control. *Applied Mathematics and Computation* Vol.196, pp. 392-401. SCIE, IF-4.0, Rank: Q1
41.	**R.K. Upadhyay (**2008) Chaotic dynamics in a three species aquatic population model with Holling type II Functional response. *Nonlinear Analysis: Modelling and Control* Vol. 13 (1), pp. 103-115. SCIE, IF-2.0, Rank: Q2
40.	**R.K. Upadhyay**, Nitu Kumari, V. Sree Hari Rao (2008) Modeling the spread of Bird flu and predicting outbreak diversity. *Nonlinear Analysis: Real world Applications* Vol. 9(4)**,** pp. 1638-1648.

	SCI, IF-2.0, Rank: Q1
39.	**R.K. Upadhyay**, Nitu Kumari, Vikas Rai (2008) Wave of chaos and Pattern Formation in Spatial Predator prey systems with Holling type IV Predator response. *Mathematical modelling of Natural Phenomena*, Vol. 3(4)**,** pp. 71-95. SCIE, IF-2.2, Rank: Q1
	2007
38.	**R. K. Upadhyay**, R.K. Naji, Nitu Kumari (2007) Dynamical complexity in some ecological models: effect of toxin production by phytoplankton. *Nonlinear Analysis: Modelling and Control* Vol. 12 (1), pp. 123-138. SCIE, IF-2.0, Rank: Q2
37.	Vikas Rai, Madhur Anand, **R.K. Upadhyay (**2007) Trophic structure and dynamical complexity in simple ecological model. *Ecological Complexity* Vol.4, pp.212-222. SCIE, IF-3.5, Rank: Q2
36.	**R.K. Upadhyay**, A. Mukhopadhyay, S.R.K. Iyengar (2007) Influence of environmental noise on the dynamics of a realistic ecological model. *Fluctuation and Noise Letters* Vol. 7 (1), pp. L61-L77. SCIE, IF- 1.8, Rank: Q3
	2006
35.	V. Rai, **R.K. Upadhyay (**2006) Evolving to the edge of chaos: chance or necessity? *Chaos, Solitons and Fractals* Vol. 30(5), pp.1074-1087. SCI, IF- 7.8, Rank: Q1
34.	Ram Naresh, Shyam Sunder, **R.K. Upadhyay (**2006) Modelling the removal of primary and secondary air pollutants by precipitation. *International Journal of Nonlinear Sciences and Numerical Simulations* Vol. 7(3), pp. 285-29. SCIE, IF-1.5, Rank: Q2
33.	**R. K. Upadhyay**, S.R.K. Iyengar (2006) Extinction and coexistence of competing prey species in Ecological systems. *Journal of Comput. Methods in Sci.& Engg*. Vol. 6, pp. 131-150. ESCI
	2005
32.	**R.K. Upadhyay**, S.R.K. Iyengar (2005) Effect of seasonality on the dynamics of 2 and 3 species prey-predator systems. *Nonlinear Analysis: Real world Applications* Vol. 6 (3), pp. 509-530. SCI, IF- 2.0, Rank: Q1
31.	**R.K. Upadhyay**, J. Chattopadhyay (2005) Chaos to order: role of toxin producing phytoplankton in aquatic systems. *Nonlinear Analysis: Modelling and Control* Vol. 10(4), pp. 383-396. SCIE, IF-2.0, Rank: Q2
	2004
30.	Vikas Rai, **R.K. Upadhyay (**2004) Chaotic population dynamics & biology of the top-predator. *Chaos Solitons & Fractals* Vol. 21, pp. 1195-1204. SCI, IF- 7.8, Rank: Q1
29.	B. Dubey, **R.K. Upadhyay (**2004) Persistence and extinction of one prey and two predator's system. *Nonlinear Analysis: Modelling and Control* Vol. 9(4), pp. 307-329. SCIE, IF-2.0, Rank: Q2
	2003
28.	**R.K. Upadhyay (**2003) Multiple attractors and Crisis route to chaos in a model food- chain. *Chaos Solitons & Fractals* Vol. 16, pp. 737-747. SCI, IF- 7.8, Rank: Q1
27.	B. Dubey, **R.K. Upadhyay**, J. Hussain (2003) Effect of Industrialization and pollution on resource biomass: A Mathematical Model. *Ecological Modelling* Vol.167 (1-2), pp. 83-95. SCI, IF- 3.1, Rank: Q2
	2001
26.	**R.K. Upadhyay**, S.R.K. Iyengar, V. Rai (2001) Species Extinction Problem: Genetic Vs Ecological factors. *Applied Mathematical Modelling* Vol. 25, pp. 937-951. SCI, IF- 5.0, Rank: Q1
25.	**R.K. Upadhyay**, V. Rai (2001) Crisis-limited Chaotic Dynamics in Ecological systems. *Chaos Solitons &Fractal* Vol. 12, pp. 205-218. SCI, IF-7.8, Rank: Q1
	2000
24.	**R.K. Upadhyay**, V. Rai, S.R.K. Iyengar (2000) Stability and complexity in ecological Systems.

	Chaos Solitons & Fractals Vol. 11, pp.533-542. SCI, IF-7.8, Rank: Q1
23.	**R.K. Upadhyay**, V. Rai, S.R.K. Iyengar (2000) How do Ecosystem respond to external perturbations? *Chaos Solitons and Fractals* Vol. 11, pp.1963-1982. SCI, IF-7.8, Rank: Q1
22.	**R.K. Upadhyay (**2000) Chaotic behavior of population dynamic systems in ecology. *Mathematical and Computer Modelling* Vol. 32, pp. 1005-1015. Discontinued as of 2014. SCI, IF-1.366, Rank: Q1
	1999
21.	Dheeraj Bhardwaj, **R.K. Upadhyay (**1999) Group Theoretic Method for Converging Shock Wave Problem. *Applied Mathematics Letters* Vol. 12, pp. 1276-1286. SCI, IF- 3.7, Rank: Q1
	1998
20.	**R.K. Upadhyay**, S.R.K. Iyengar, V. Rai (1998) Chaos: An ecological reality? *International Journal of Bifurcation and Chaos* Vol. 8(6), pp.1325-1333. SCI, IF- 2.2, Rank: Q2
	1997
19.	**R.K. Upadhyay,** V. Rai (1997) Why chaos is rarely observed in natural Populations? *Chaos Solitons & Fractals* Vol. 8(12), pp. 1933-1939. SCI, IF-7.8, Rank: Q1
PAPERS/REPORT PUBLISHED IN REFFERED NATIONAL JOURNALS	
18.	Dipesh Barman, **R.K. Upadhyay** (2024) Exploring the dynamics of a fractional order generalist predator-prey system with Competitive interference. *J. Innovation Sciences and Sustainable Technologies* Vol. 4(2), pp. 79-102.
17.	**R.K. Upadhyay** (2022) Investigating the Role of Fear and Top Predator Interference on the Spatio-Temporal Dynamics of Food Chain Model. J. Int. Acad. Phys. Sci. Vol. 26(2), pp. 109-133.
16.	**R.K. Upadhyay (**2015) Role of predation on the chaotic dynamics in Ecological systems. *JUET Research Journal of Science and Technology* Vol. 2(1), pp. 1-18.
15.	**R. K. Upadhyay,** S. Dey (2002) Advances in Mathematical, Statistical & Computational methods in Science & Technology. *Current Science* Vol. 82(11), pp. 1313-1314. SCI, IF- 1.102. Rank: Q2.
PAPERS PUBLISHED IN REFERRED INTERNATIONAL/NATIONAL CONFERENCE PROCEEDINGS/BOOK CHAPTERS/SYMPOSIA	
14.	Swati Mishra, **R.K. Upadhyay (**2022) Modeling the Fear-Induced Spatiotemporal Dynamics of Three-Species Interaction in Agroecosystems. Advances in Nonlinear Dynamics, NODYCON Conference Proceedings Series. Springer, Cham. Pp. 147-162. Springer International Publishing.
13.	Sangeeta Kumari, **R.K. Upadhyay** (2021) Exploring the Delayed and Optimally Controlled Dynamics of Malicious Objects in Computer Network. Pp. 31-63. Nova Science Publication, New York 2020.
12.	Renu Verma, S.P. Tiwari, **R.K. Upadhyay (**2018) Dynamical Behaviors of Fuzzy SIR Epidemic Model. *Advances in Intelligent Systems and Computing* 643, pp. 482-492. Springer International Publishing.
11.	P. Roy, **R.K. Upadhyay (**2014) Modeling the complex dynamics of epidemic spread under Allee effect. *Recent Advances in Information Technology*, Springer-Verlag, Berlin, pp. 117-124.
10.	P. Roy, **R.K. Upadhyay (**2013) Dynamical analysis of an Eco-epidemiological model of Salton Sea: Deterministic chaos and its possible control. *Recent Advances in Mathematics and its Applications*, Allied Publishers Pvt. Ltd., New Delhi, pp. 108-121.
9.	V. Sree Hari Rao, **R.K. Upadhyay (**2013) Modeling the Spread and Outbreak Dynamics of Avian Influenza (H5N1) Virus and Its Possible Control. *Dynamics models of Infectious Diseases*, Springer Science, New York, pp. 227-250.
8.	S.N. Raw, **R.K. Upadhyay,** N.K. Thakur (2012) Crisis-limited chaotic dynamics in an eco-epidemiological system of the Salton Sea. *Mathematical modeling and Scientific computation*, Springer-Verlag Berlin, Heidelberg, CCIS 283, pp.201-209.

7.	N.K. Thakur, **R. K. Upadhyay,** S. N. Raw (2012) Instabilities and Patterns in Zooplankton-Phytoplankton dynamics: Effect of spatial heterogeneity. *Mathematical modeling and Scientific computation*, Springer-Verlag Berlin, Heidelberg, CCIS 283, pp.229-236.
6.	Vikas Rai, A. M. Sedeki, Rana D. Parshad, **R.K. Upadhyay**, Suman Bhowmick (2011) Wetlands for Water Quality Management–The Science and Technology. *Current issues of water Management*, InTech, Croatia, Europe, pp.163-176. (Edited by Uli Uhlig).
5.	**R.K. Upadhyay** (2007) Chaotic dynamics in a tri-trophic mutual interference aquatic population model. *Computational and Mathematical Methods in Science and Engineering*, Illinois Institute of Technology Chicago, Illinois, USA, pp. 383-396.
4.	V. Rai, **R. K. Upadhyay** (2006) Ecological models with edge of Chaos. *Mathematical Biology*, IIT Kanpur, pp. 273-277. [Anamaya Publisher]
3.	B. Dubey, **R.K. Upadhyay** (2006) A model for the effect of predation on two competing prey species. *Mathematical Biology*, IIT Kanpur, pp. 242- 250.
2.	**R.K. Upadhyay**, V. Rai (2004) Realizing Ecological Systems. *Mathematics and Information Theory: Recent topics & Applications*, NSIT, New Delhi, pp. 208-217.
1.	**R.K. Upadhyay** (2003) Dynamics of Noised–induced ecological systems. *Advances in Mathematical, Statistical & Computational methods in Science and Engineering*, ISM Dhanbad, pp. 287-298.
0.	**R.K. Upadhyay**, V. Rai, S.R.K. Iyengar (2001) Chaos Vs Stability in seasonally perturbed predator-prey systems. *Mathematical modeling*, University of Roorkee, pp. 605-610. Deptt. Of Maths.

Complete list of papers published in different International Journals with impact factors

Sl. No.	Name of Journals	Publishing House	Impact Factor	Type of Journals (SCI/SCIE/SCOPUS/ESCI)	No. of Publications
1.	Chaos Solitons& Fractals	Elsevier	7.8	SCI, Q1	
2.	Neural Networks	Elsevier	7.8	SCI, Q1	
3.	Nonlinear Dynamics	Springer	5.2	SCI, Q1	
4.	Applied Mathematical Modelling	Elsevier	5.0	SCI, Q1	
5.	Scientific Reports	Nature Publishing Group	4.6	SCIE, Q1	
6.	Results in Physics	Elsevier	5.3	SCI, Q1	
7.	Fractals-Complex Geometry patterns and Scaling in Nature and Society	World Scientific	3.3	SCIE, Q1	
8.	Applied Mathematics and Computation	Elsevier	4.0	SCIE, Q1	
9.	Applied Mathematics Letters	Elsevier	4.294	SCI, Q1	
10.	The Royal Society Interface	The Royal Society publishing	3.9	SCIE, Q1	
11.	Journal of Franklin Institute-Engineering and Applied Mathematics	Elsevier	3.7	SCIE, Q1	
12.	Commun. Nonlinear Science	Elsevier	3.4	SCIE, Q1	

	Numerical Simulation				
13.	Mathematical Biosciences	Elsevier	4.3	SCI, Q1	
14.	Physica A	Elsevier	3.3	SCI, Q1	
15.	Physica D	Elsevier	2.7	SCIE, Q1	
16.	Advances in Difference Equations	Springer	4.1	SCIE, Q1	
17.	Eurpean Physics Journal Plus	Springer	3.4	SCIE, Q1	
18.	Chaos	AIP	2.7	SCI, Q1	
19.	Mathematics and Computers in Simulation	Elsevier	4.4	SCIE, Q1	
20.	Ecological Modelling	Elsevier	3.1	SCIE, Q2	
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32.	International Journal of Bifurcation and chaos	World Scientific	1.9	SCIE, Q2	
33.	Nonlinear Analysis: Modelling and Control	Lithuania, Vilnius University	26	SCIE, Q1	
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54.	Applications and Applied Mathematics: An International Journal (AAM)	A&M University, Texas, USA		ESCI	
55.	Journal of computational methods in Science and Engineering	IOS press		ESCI	
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57.	Natural Resources & Engineering	Taylor & Francis			1
58.	Network Biology	IAEES			1
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60.	Journal of Biodiversity management and Forestry	Purdue University, USA	0.31		1
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62.	Modeling Earth Systems and Environment	Springer			1
63.	Journal of Zhejiang University Science Edition	Zhejiang da xue		Scopus	1
64.	Mathematics	MDPI	2.3	SCIE. Q1	2
65.	Biology Basel	MDPI	4.2	SCIE, Q1	1
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67.	European Journal of Control	Elsevier	2.5	SCIE, Q2	1

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