

SUNITA GAKKHAR

Name: Dr. Sunita Gakkhar

Nationality: Indian

Designation: Professor
Department of Mathematics
Indian Institute of Technology, Roorkee (India)

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Roorkee, 247667 India,

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<u>Qualifications:</u>	M. Sc.	U O R Roorkee	1977
	Ph. D	I I T Kanpur	1982

Awards:

- Member, National Academy of Sciences (2009)
- Nawab Zain Yar Jung Bahadur Memorial Prize for the paper in the Journal Institution of engineers (India) (2008)
- Certificate of Merit Institution of Engineers award: for the paper in Journal of Institution of Engineers (India) (1996-1997)
- Chancellor's Gold medal: highest marks in all PG courses in the university (1977)
- University Gold Medal: Standing First in First Class (1977)
- A N Khosla Gold Medal: Highest marks in all M.Sc. courses (1977)
- Smt Sushilamati Gold Medal: Best student in M Sc / M Tech Courses (1977)
- Dr. G Pande Silver Medal: Best Girl Student (1977)
- Silver Medal: Standing First in First Class in High School (1971)

Research interests:

- Mathematical modeling of Ecological, Epidemiological and Environmental problems

Conference Symposium Organized:

- "Nonlinear Dynamical Models and Their Behavior" March 11-13, 2005
- "Current Trends in Biomathematics" March 14, 2005
- "National Meet of Research Scholars in Mathematical Sciences", 2009
- Workshop on "Differential equations in Ecology and Epidemiology" 10-14 Oct, 2012

Visits Abroad:

- Indo French project, Le Havre University, France 2015
- Presented paper Symomath 2014, Indonesia September 2014
- Presented paper CSC Las Vegas USA July 2011
- Presented paper, WSEAS Conference, Greece 2004
- DAAD meeting on Industrial Mathematics, Sri Lanka 2003
- Presented paper at Swinburn University, Melbourne, 1994
- Workshop on Mathematical Ecology, Trieste, Italy, 1982

Ph.D Supervision: Awarded: 14 Registered: 6

Publications: 106 papers in Journals/ proceedings

Selected Publications (2009-2014)

1. Mr. Tilahun Melak Sitote, **Sunita Gakkhar** Potential Non-homologous Protein Targets of Mycobacterium Tuberculosis H37Rv identified From Protein-Protein Interaction Network, *Journal of Theoretical Biology*, (2014)
2. **Sunita Gakkhar**, Anuraj Singh. Stabilization of Modified Leslie-Gower Prey-Predator Model, *Differential Equations and Dynamical Systems* Vol **22** pp 239- DOI 10.1007/s12591-013-0182-6 (2014)
3. Arti Mishra, , **Sunita Gakkhar** The Effects of Awareness and Vector Control on Two Strain Dengue Dynamics, *Applied Mathematics and Computation* Vol. 252, pp 148-158 (2013)
4. Sandip Banerjee, Ram Keval, **Sunita Gakkhar**, Modeling the dynamics of Hepatitis C Virus with combined antiviral drug therapy: Interferon and Ribavirin, *Mathematical BioSciences* Vol. 245, pp 235-248 (2013) (5 yr impact factor 1.784)
5. **Sunita Gakkhar**, Nareshkumar Chavada Impact Of Awareness On The Spread Of Dengue Infection In The Human Population, *Applied Mathematics* Vol. 4 No. 8a, (2013)
6. Anupam Priyadarshi, **Sunita Gakkhar**. Dynamics of Leslie–Gower type generalist predator in a tri-trophic food web system, *Communications in Nonlinear Science and Numerical Simulations* Vol.18 pp 3202-3218 (2013) (5 yr impact factor 2.671)
7. **Sunita Gakkhar**, Naresh Chavada. A Dynamical Model For HIV-TB Co-Infection, *Applied Mathematics and Computations* Vol. 218, No 18 pp 9261-9270 (2012) (5 yr impact factor 1.454)
8. **Sunita Gakkhar**, Anuraj Singh. Control of Chaos Due to Additional Prey in Hastings Powell Food Chain Model, *Journal of Mathematical Analysis And Applications* Vol. 385 pp 423-438 (2012) (5 yr impact factor 1.259)
9. **Sunita Gakkhar**, Anuraj Singh Complex dynamics in a prey predator system with multiple delays, *Communications in Nonlinear Science and Numerical Simulations* Vol.17 pp 914-929 (2012) (5 yr impact factor 2.671)

10. **Sunita Gakkhar**, Anuraj Singh. Brahampal Singh Effects of delay and seasonality on Phytoplankton - Zooplankton System *International Journal of Biomathematics*. Vol. 05(5) , 1250047 (2012) impact factor 0.633
11. **Sunita Gakkhar**, Anuraj Singh A delay model for viral infection in toxin producing phytoplankton and Zooplankton system. *Communications in Nonlinear Science and Numerical Simulations* Vol. 15(11), pp 3607-3620 (2010) (5 yr impact factor 2.671)
12. **Sunita Gakkhar**, Kuldeep Negi, Saroj Kumar Effects of Seasonal Growth on Ratio Dependent Delayed Prey Predator System. *Communications in Nonlinear Science and Numerical Simulations* Vol. 14, pp 850-862 (2009) (5 yr impact factor 2.671)