# Dr. Prakash Kumar Das

Assistant Professor
M.Sc (Mathematics), PhD (Mathematics)
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**Overview:**
**Dr. Prakash Kr. Das** received his B.Sc. (Hons) and M.Sc. degrees from the University of Burdwan in 2006 and 2008, respectively. He completed his B.Ed degree from the same university in 2014. He worked as an Assistant teacher of Mathematics at B.M.K.H. School, Budbud, Burdwan, for five years until Feb 2015. He completed his Ph.D. degree on the topic "**On analytical and numerical solutions of some nonlinear differential equations"** from Visva-Bharati (a central University) in 2019. Thereafter he is actively involved in advanced level research work. His field of research interests are solutions of the constant and variable coefficient of nonlinear differential equations with integer and fractional order derivative. Since Feb 2015, Dr. Das has been serving in this institution as a faculty member in the Mathematics Department.

**Date of appointment to the present job:**
5th Feb 2015

**Other Academic/Administrative post:**
1. Departmental coordinator (2015-2018)
2. Member UG BOS of Mathematics, KNU (09.04.2020-present)

**Academic background:**
1. Madhyamik (2000) Raj Pur Nandi High School
2. H.S (2002) T.D.B.College, Raniganj
3. B.Sc Math (H) (2006) T.D.B.College, Raniganj
4. M.Sc Math (2008) The University of Burdwan
5. Ph.D Math (2019) The Visva-Bharati, Santiniketan (a central University)

**Information about M.Phil/PhD etc.:**

- **PhD Topic: On analytical and numerical solutions of some nonlinear differential equations**. (Web link: http://shodh.inflibnet.ac.in:8080/jspui/handle/123456789/5821)

**Area of present academic/ Research interest/Research Projects& Schemes and Collaborations:**

- **Research interest:** Solutions of the constant and variable coefficient of nonlinear differential equations with integer and fractional order derivative.
  (Web link: https://scholar.google.co.in/citations?user=byx6eBoAAAAJ&hl=en)
- **Research projects:** NA
- **Collaborations:** NA

**Ph.D. Supervision: NA**
**Academic Visit Abroad: NA**

**Publications:**

- PK Das, MM Panja, 2016. A Rapidly Convergent Approximation Method for Nonlinear Ordinary Differential Equations, IJSEAS 2 (8), 334-348 http://ijseas.com/index.php/issue-archive-2/volume2/issue-8/
- PK Das, MM Panja, 2017. A Splitting Technique for Superposition Type Solutions of Cubic Nonlinear Ordinary Differential Equations, Applied Mathematical Sciences 11 (14), 665-675 http://www.m-hikari.com/ams/ams-2017/ams-13-16-2017/7140.html
- PK Das, D Singh, MM Panja, 2018. Solutions and conserved quantities of Biswas–Milovic equation by using the rapidly convergent approximation method, Optik 174, 433-446 https://www.sciencedirect.com/science/article/abs/pii/S0030402618311756

- PK Das, S Mandal, MM Panja, 2018. Piecewise smooth localized solutions of Liénard-type equations with application to NLSE, Mathematical Methods in the Applied Sciences 41 (17), 7869-7887 https://onlinelibrary.wiley.com/doi/abs/10.1002/mma.5249
- PK Das, 2018. Rapidly Convergent Approximation Method to Chiral Nonlinear Schrodinger's Equation in (1+2)-dimensions, Sohag Journal of Mathematics 5 (1), 29-33 http://www.naturalspublishing.com/download.asp?ArtcID=12727
- PK Das, D Singh, MM Panja, 2019. Some modifications on RCAM for getting accurate closed-form approximate solutions of Duffing-and Lienard-type equations, Journal of Advances in Mathematics 16, 8213-8225 https://rajpub.com/index.php/jam/article/view/8017
- PK Das, 2019. The rapidly convergent approximation method to solve system of equations and its application to the Biswas-Arshed equation, Optik 195, 163134 https://www.sciencedirect.com/science/article/abs/pii/S0030402619310253

**Books Chapters:**
Das P.K., Panja M.M. (2015) An Improved Adomian Decomposition Method for Nonlinear ODEs. In: Sarkar S., Basu U., De S. (eds) Applied Mathematics. Springer Proceedings in Mathematics & Statistics, vol 146. Springer, New Delhi. (**DOI**https://doi.org/10.1007/978-81-322-2547-8_18)
(Web link: https://link.springer.com/chapter/10.1007/978-81-322-2547-8_18)

**Seminars, Webinars and Conferences attended:**

- Das PK, Panja M.M. "*An improved Adomian decomposition method for nonlinear ODEs*" *Presented in Emerging Trends in Applied Mathematics held at Department of Applied Mathematics, University of Calcutta during February 12-14, 2014.*
- Das PK, Panja M.M. "*Exact smooth and nonsmooth solutions for integro-partial differential equations by rapidly convergent approximation method", Presented in National Conference on Emerging Trends in Mathematics and its Applications, held at Department of Mathematics, Kazi Nazrul University of Asansol during March 20-21, 2018.*
- Das PK, Singh D, Panja MM, *Some modications on RCAM for getting smooth solutions of Lienard-type equations Presented in International Conference on Advancement in Science and Technology (ICAST-2018) organized by Department of Physics, Visva-Bharati during September 3-4, 2018.*

**Conference/Seminar Organised: NA**

**Life Membership: NA**
**Awards: NA**
**Others/ Miscellaneous: NA**