Brief CURRICULUM VITAE
(Updated on 21st June, 2022)
of

Dr. Jyotindra C. Prajapati
(M.Sc.; M.Phil.; Ph.D.)

Name: Dr. Jyotindra C. Prajapati (M.Sc.; M.Phil. ; Ph.D.)
Current Designation: PROFESSOR
Area of specialization: Special Functions, Integral Transforms, Fractional Calculus
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Key achievements:

1. American Mathematical Society Mathematical Reviews/MathSciNet Reviewer number: 125441
2. Winner of "**Sardar Patel Reseach award**" 15th December 2020
3. **One of my Ph.D. students** Dr. Krunal Kachhia received best thesis award from Gujarat Science Congress Association under category of Mathematical and Computer Science in 2016

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LIFE MEMBERSHIP OF PROFESSIONAL BODY

1) Indian Society for Technical Education (**ISTE/** LM 40845/2003)
2) Indian Mathematical Society (**IMS/** P 06 118/2006)
3) Society of Special functions and their Applications (**SSFA/** LM /910/2006)
4) Gujarat Ganit Mandal (**GGM/**LM **/** 1821/2010)
5) Indian Science Congress Association (**ISCA/** L 18921/2011)
6) Indian Society for History of Mathematics (**ISHM**/ LM / 252/2012)
7) Ramanujan Mathematical Society (**RMS**/ LM /770/2012)
8) Calcutta Mathematical Society (**CMS**/ LM /9668/2012)
9) Indian Society of Industrial and Applied Mathematics (**ISIAM**/ LM/P 32/2012)
10) Indian Society of Mathematics and Mathematical Sciences (**ISMAMS**/LM/319/2012)
11) The Association of Mathematics Teachers of India (**AMTI**/ LM /6677/2012)
12) Allahabad Mathematical Society (**AllMS**/ **AM/** 12/11)
13) Global Technocrats & Intellectual's Association (**GTIA**/ LM /114)
14) Indian Society for Mathematical Modelling & Computer Simulation (TBA)
15) Society of Engineering and Applied Sciences (SEAS)
16) Fractional Calculus and Application Group, Faculty of Science - Alexandria University, Egypt

Vibrant role

1) Expert member of Academic Audit Committee, Department of Mathematics, Marwadi University, Rajkot.
2) Member BOS Mathematics, Marwadi University, Rajkot.
3) Member BOS Mathematics, CVM University, Vallabh Vidyanagar.
4) Member BOS Mathematics, VNSGU, Surat.
5) Member Departmental IQAC, Sardar Patel University
6) Member Departmental Research Advisory Committee, Sardar Patel University

1. Details of Educational qualifications:

Degree	University	Year of passing
Ph. D. (Mathematics)	The Sardar Vallabhbhai National Institute of Technology (NIT), Surat.	July, 2008
M. Phil.(Mathematics)	The Sardar Patel University, V.V. Nagar.	July, 1997
M. Sc.(Mathematics)	The Maharaja Sayajirao University of Baroda, Vadodara.	April, 1995
B.Sc.(Mathematics)	The Maharaja Sayajirao University of Baroda, Vadodara.	May, 1993

2. Details of Employments:

(1) Working as **PROFESSOR (since 22nd April, 2022)** and worked as **Associate Professor (20th April, 2018 to 21st April, 2022),** Department of Mathematics, Sardar Patel University, Vallabh Vidyanagar, Anand

(2) Worked as **Associate Professor (3rd August, 2017 to 19th April, 2018),** Department of Mathematics, Veer Narmad South Gujarat University, Surat

(3) Worked as **Professor & Head,** Department of Mathematics, Faculty Technology and Engineering, Marwadi Educaion Foundation Group of Institutions (MEFGI), Rajkot-360003, since **19st August, 2014 to 2nd August, 2017**.

(4) Worked as **Associate Professor & Head (1st January 2010 to 18th August 2014),**
   Assistant Professor & Head (1st April 2008 to 31st December 2009),
   Lecturer (senior scale) & Head (18th December 2000 to 31st March 2008),
   Department of Mathematical Sciences, Charotar University of Science and Technology, Changa.

3. Title of Thesis:

1) **M. Phil.:** "Pseudo regularity in Commutative Banach algebras"

2) **Ph.D.:** "Generalization of Mittag-Leffler function and its Applications"

Selected Publications (SCI/SCOPUS/WoS)

[1] "*On a generalization of Mittag-Leffler function and its properties*", **Journal of Mathematical Analysis and Application** (pISSN 0022-247X, Impact Factor: 1.259), **336** (2007), 797–811, **ELSEVIER, U.S.A.** (with A. K. Shukla).

[2] "*Some properties of a class of polynomials suggested by Mittal*", **Proyecciones Journal of Mathematics** (ISSN 0716-0917, Impact Factor: 0.333), **26** (2) (2007), 145-156, **SciELO group, Latin America** (with A. K. Shukla).

[3] "*Generalization of a class of polynomials*", **Demonstratio Mathematica,** Walter de Gruyter, (ISSN 0420-1213, Impact Factor: 0.551), **40** (4) (2007), 819-826, **DE GRUYTER**, **Poland** (with A. K. Shukla).

[4] "*A general class of polynomials associated with generalized Mittag-Leffler function*", **Integral Transforms and Special Functions** (ISSN 1065-2469, Impact Factor: 0.810), **19** (1) (2008), 23-34, **Taylor & Francis, U.K.** (with A. K. Shukla).

[5] "*Some remarks on generalized Mittag-Leffler function*", **Proyecciones Journal of Mathematics** (ISSN 0716-0917, Impact Factor: 0.333), **28** (1) (2009), 27-34, **SciELO group, Latin America** (with A. K. Shukla).

[6] "*On Laguerre Transform in two Variables*", **Integral Transforms and Special Functions** (ISSN 1065-2469, Impact Factor: 0.810), **20** (6) (2009), 459-470, **Taylor & Francis, U.K.** (with A. K. Shukla and I. A. Salehbhai).

[7] "*On sequence of functions*", **Communication in Korean Mathematical Society** (ISSN 1225-1763, Impact Factor: 0.31), **28** (1) (2013), 123-134, **Korean Mathematical Society, Korea** (with A. K. Shukla and I. A. Salehbhai)

[8] "*Some properties of Generalized Hypergeometric Function*", **Communications of the Korean Mathematical Society** (ISSN Print: 1225-1763, ISSN Online: 2234-3024, Impact Factor: 0.31), **28** (2) (2013), 303-317, **Korean Mathematical Society, Korea** (with Ajay Kumar Shukla, S. B. Rao, Amit D. Patel).

[9] "*Some Results on Generalized Mittag-Leffler Function Operator*", **Journal of Inequalities and Applications** (eISSN: 1029-242X, Impact Factor: 0.82), **33** (2013), 1-6, **Springer** (R. K. Jana, R. K. Saxena and A. K. Shukla).

[10] "*Certain features of the Mittag-Leffler function with argument x^{α}*", **Italian Journal of Pure and Applied Mathematics (**ISSN 2239-0227, Impact Factor: 0.11), **30** (2013), 411-416**, Forum Societa Editrice Universitaria Udinese srl, Italy**

[11] "*Differential recurrence relation of Generalized k- Wright function*" **International Journal of Pure and Applied Mathematics**, (pISSN 1311-8080, eISSN 1314-3395, Impact Factor: 2.13) **87** (4) (2013), 603-610, Academic Publications Ltd, **Bulgaria** (with Kuldeep Singh Gehlot and Bhailal P. Patel)

[12] "*Differential equation of Generalized k- Wright function*" **International Journal of Pure and Applied Mathematics**, (pISSN 1311-8080, eISSN 1314-3395, Impact Factor: 2.13) **87** (4) (2013), 611-619, Academic Publications Ltd, **Bulgaria** (with Kuldeep Singh Gehlot and Bhailal P. Patel)

[13] "*A study of Saigo-Maeda fractional operators with generalized K-Wright function*" **International Journal of Pure and Applied Mathematics**, (pISSN 1311-8080, eISSN 1314-3395, Impact Factor: 2.13), **93** (5) (2014), 715-728, Academic Publications Ltd, **Bulgaria** (with Kantesh Gupta and Meena Gurjar)

[14] "*Some Properties of Wright type Generalized Hypergeometric Function via Fractional Calculus*" **Advances in Difference Equations, (**eISSN: 1687-1847, Impact Factor: 0.76), **119** (2014), 1-11, **Springer** (with S. B. Rao, A. D. Patel and A. K. Shukla).

[15] "*Some results due to Konhauser polynomials of first kind and Laguerre polynomials*" **Applied Mathematics and Computation** (pISSN 0096-3003, Impact Factor: 1.672), **247** (2014), 639-650, **ELSEVIER** (with N. K. Ajudia and Praveen Agarwal)

[16] "*Rotations in three dimensions*" **Journal of Interdisciplinary Mathematics, Taru Publications and Taylor & Francis, U.K. ,** (pISSN: 0972-0502, eISSN: 2169-012X), **18** (1-2) (2015), 97-102, **Walter de Gruyter**, (with J. López-Bonilla and R. López-Vázquez)

[17] "*Solution of fractional partial differential equation arise in study of heat transfer through diathermanous materials*" **Journal of Interdisciplinary Mathematics, Taru Publications and Taylor & Francis, U.K. ,** (pISSN: 0972-0502, eISSN: 2169-012X), **18** (1-2) (2015), 125-132 (with Krunal B. Kachhia)

[18] "*Fractional Calculus of a unified Mittag-Leffler function*", **Ukranian Mathematical Journal,** (pISSN: 0041-5995, eISSN: 1573-9376, Impact Factor: 0.212), **66** (8) (2015), 1267-1280, **Springer** (with B. V. Nathwani)

[19] "*Integral inequalities involving generalized Erdélyi-Kober fractional integral operators*", **Open Mathematics (formerly Central European Journal of Mathematics), (**ISSN 2391-5455, Impact Factor: 0.578**), 14** (2016), 89-99 (with D. Baleanu and S. D. Purohit)

[20] "*Some Integral Transforms and Fractional Integral formula for Extended Hypergeometric Functions*" **Communications of the Korean Mathematical Society** (ISSN Print: 1225-1763, ISSN Online: 2234-3024, Impact Factor: 0.31), **31** (3) (2016), 591-601 (with Praveen Agrawal, J. Choi, Krunal Kachhia, Hui Zhou).

[21] "*Functions of Bounded Fractional Differential Variation- A New Concept*" **Georgian Mathematical Journal**, (pISSN: 1072-947X, eISSN: 1572-9176, Impact Factor: 0.451), **23** (3) (2016), 417-427, **DE GRUYTER** (with Krunal B. Kachhia)

[22] "*Fractional calculus approach to study temperature distribution within a spinning Satellite*" **Alexandria Engineering Journal,** (ISSN: 1110-0168, Impact Factor: 0.450)**, 55** (2016), 2345-2350, **ELSEVIER**, (with Krunal B. Kachhia and Shiv Prasad Kosta)

[23] "*On generalized fractional kinetic equations involving generalized Lommel-Wright Functions*" **Alexandria Engineering Journal,** (ISSN: 1110-0168, Impact Factor: 0.450), **55** (2016), 2953-2957, **ELSEVIER,** (with Krunal B. Kachhia)

[24] "*Certain Properties of Gegenbauer polynomials via Lie Algebra*", **Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales. Serie A. Matemáticas,** (pISSN: 1578-7303, eISSN: 1579-1505, Impact Factor: 0.468), In press, **Springer** (with Krunal B. Kachhia, Praveen Agarwal and J. Choi)

[25] "*On a sequence of functions* $V_n^{(\alpha,\beta,\delta)}(x\,;a,k,s)$ "", **Proyecciones Journal of Mathematics** (ISSN 0716-0917, Impact Factor: 0.333), **35** (4) (2016), 417-436, **SciELO group, Latin America** (with N. K. Ajudia).

[26] "*Some Integral Transforms Involving Extended Generalized Gauss Hypergeometric Functions*" **Communications of the Korean Mathematical Society** (ISSN Print: 1225-1763, ISSN Online: 2234-3024, Impact Factor: 0.31), **31** (4) (2016), 779-790 (with Krunal Kachhia, J. Choi and S. D. Purohit)

[27] "*Fractional integrals and solution of fractional kinetic equations involving k-Mittag-Leffler function*" **Transactions of A. Razmadze Mathematical Institute, ELSEVIER, 171** (2017), 144–166 (with Mehar Chand and Ebenezer Bonyah)

[28] "*Spline collocation approach to study Brachistochrone problem*" **Proyecciones Journal of Mathematics** (ISSN 0716-0917, Impact Factor: 0.333), **38** (2) (2019), 351-360, **SciELO group, Latin America** (with Pinky Shah)

[29] "*On flow of electric current in RL circuit using Hilfer type composite fractional derivative* **Proyecciones Journal of Mathematics** (ISSN 0716-0917, Impact Factor: 0.333), **38** (4) (2019), 633-645, **SciELO group, Latin America** (with K.B.Kachhia, K.S.Pandya, R.B.Jadeja)

[30] "*Fractional Calculus and Applications of family of extended generalized Gauss hypergeometric Functions*", **Discrete & Continuous Dynamical Systems – S, American Institute of Mathematical Sciences** (ISSN:1937-1632 eISSN: 1937-1179, Impact Factor 1.233), **13**(3) (2020), 539-560 (doi:10.3934/dcdss.2020030) (with Mehar Chand, Ebenezer Bonyah and Jatinder Kumar Bansal)

[31] "*Generalized iterative method for the solution of linear and nonlinear fractional differential equations with composite fractional derivative operator*", **AIMS Mathematics** (Journal of American Institute of Mathematical Sciences), (ISSN 2473-8988, Impact Factor: 0.879), **5**(4) (2020), 2888–2898 (with Krunal Kachhia)

[32] "*On generalized sequence of functions* $B_{qn}^{(\alpha,\beta,\gamma,\delta)}(x\,;a,k,s)$" **Thai Journal of Mathematics,** (ISSN 1686-0209, Impact Factor 0.5), **19**(1) (2021), 221-231 (With N. K. Ajudia and V. N. Mishra)

BOOK Chapters Published

1) "*Pseudo Regularity in Commutative Banach Algebras*", **Advances in Mathematics Research**, Volume 18, Chapter 5, pp. 187-222, Editor: Albert R. Baswell, NOVA SCIENCE PUBLISHERS, INC. 400 Oser Avenue, Suite 1600 Hauppauge, NY 11788-3619, **USA** © 2013, ISBN: 978-1-62417-930-3

2) "*Certain Image Formuale and Fractional Kinetic Equations Involving Extended Hypergeometric Functions*" **Advances in Real and Complex Analysis with Applications (under Trends in Mathematics**), Chapter 1, pp. 1-32, Editors: Michael Ruzhansky, Praveen Agarwal, Yeol Je Cho, Ivan Area, **Birkhauser**, © Spinger Nature Singapur Pte Ltd, 2017 ISBN: 978-981-10-4337-6 (with Krunal Kachhia and Praveen Agarwal)

3) *"Introduction to Class of Uniformly Fractional Differentiable Functions"* **Mathematical Modelling, Applied Analysis and Computation,** Chapter 6, pp. 103-112**, Editors:** Jagdev Singh,Devendra Kumar, Hemen Dutta, Dumitru Baleanu, Sunil Dutt Purohit, **Springer**, © Springer Nature Singapore Pte Ltd. 2019, ISBN 978-981-13-9607-6 ISBN 978-981-13-9608-3 (eBook) (with Krunal Kachhia)

4) "*Certain Properties of Konhauser Polynomial via Generalized Mittag-Leffler Function,*" **Fractional Calculus**, Chapter 11, pp. 119-214, **Editors**: Praveen Agarwal, Dumitru Baleanu, YangQuan Chen, Shaher Momani, José António Tenreiro Machado **Springer**, © Springer Nature Singapore Pte Ltd. 2019, ISBN 978-981-15-0429-7 ISBN 978-981-15-0430-3 (eBook) (with N. K. Ajudia, Shilpi Jain, Anjali Goswami and Praveen Agarwal)

INVITED TALK IN SEMINAR/CONFERENCE/STTP/SDP

[1] "*A fractional Calculus approach in study of Generalized Mittag Leffler Function*" **Centenary year of the Indian Mathematical Society (IMS, 1907-2007), 73rd Annual Conference**, at Department of Mathematics, University of **Pune**, during December 27-30, **2007**

[2] "*On new sequence of Functions*", **Conference on Special Functions and their Applications & Symposium on Computational and Biological Mathematics,** at School of Mathematics & Allied Sciences, Jiwaji University, **Gwalior**, during June 21-23, **2010**.

[3] "*Some problems of Analysis*", **Staff development programme**, at L. J. Institute of Engineering & Technology, **Ahmedabad**, during June 21-July 2, **2010**

[4] "*Cauchy Functional Equations*" **47th annual Conference** of Gujarat Ganit Mandal, at Multi purpose high school, Udwada, **Valsad**, during October 21-23, **2010**

[5] "*A note on certain operational representations for the Laguerre polynomials*" **76th annual conference of Indian Mathematical Society,** at Department of Applied Mathematics and Humanities, National Institute of Technology, **Surat**, during December 27-31, **2010**

[6] "*Unification of a generalized Mittag-Leffler function and certain hypergeometric function and its properties"* **International Conference on Special Functions and their Applications (ICSFA-2011) & Symposium on "Life and Works of Ramanujan",** at Department of Mathematics and Statistics, J. N. Vyas University, **Jodhpur,** during July 28-30, **2011**

[7] "*On Mittag-Leffler type functions*" **14th International Conference of International Academy of Physical Sciences (CONIAPS-XIV)** at National Institute of Technology, **Surat,** during December 22-24, **2011**

[8] "*Some problems of Mathematics*", **NATIONAL SEMINAR Advances in Mathematics: Historical Developments & Engineering Applications (NSAM-2012)** at Department of Mathematics, Institute Computer & Communication Technology (ICCT), **New Vallabh Vidyanagar** during January 9-11, **2012**

[9] *"Laplace Transforms of some well-known Special Functions"* **International Conference on Special Functions and their Applications (ICSFA-2012) & Symposium on "Life and Works of Ramanujan"** at National Institute of Technology, **Surat,** during June 27-29, **2012**

[10] *"Some problems of Mathematics"*, **Academic Staff College**, Sardar Patel University, Vallabh Vidyanagar on March 5, **2013**

[11] *"Differential recurrence relation of Generalized K-Wright function"* **International Conference on Special Functions and their Applications (ICSFA-2013) & Symposium on "Life and Works of Ramanujan"** at National Institute of Technology, **Jaipur,** during December 13-15, **2013**

[12] *"Mathematics Today and Tomorrow"* **State level sensitization programme on Mathematics for Teachers"**. This Project is supported by Vigyan Prasar, Department of Science &Technology, Govt.of India, New Delhi (as part of Nationwide Sensitization Programme on Mathematics for Teachers) at Manthan Narmada Lok Vigyan Kendra, Govt. School Campus, Station Road, Rajpipla, during December 20-21, **2013**.

[13] *"Indeterminate forms"* at **L. E. College (Govt. Engineering college), Morbi** under **TEQIP** for 1st semester Engineering students. Total numbers of 473 students were present on 15th October, **2014**.

[14] *"On Eulers Integral"* **International Conference on Special Functions and their Applications (ICSFA-2015) & Symposium on "Fractional Calculus and its Applications to Special Functions"** at Amity University, **Noida,** during September 10-12, **2015**

[15] *"Beta functions of first kind and double summation formulae"*, **24th International Conference on Finite and Infinite Dimensional Complex Analysis and Applications (ICFIDCAA)** at Anand International College, **Jaipur,** during August 22-26, **2016**

[16] *"Factorial Functions"*, **Engineer's Day Celebration** at Marwadi University, Rajkot, September, 15, **2016**

[17] *"Applications of Mathematics in Engineering"*, A short term training on **Applications of Mathematics and Physics in Engineering**, (APME-2018) at G H Patel Colllege of Engineering and Technology, **Vallabh Vidyanagar**, April 30-May 5, **2018**

[18] *"Problems on Complex Analysis"*, **National Workshop on Problem Solving in Mathematics-IX**, Department of Mathematics, Sardar Patel University, **Vallabh Vidyanagar**, May 2-7, **2018**

[19] *"Probability Distribution and Applications"*, **TEQIP-III Sponsored Faculty Development Programme on "Advanced Methodology and Modelling Techniques"** organized by Rajasthan Technical University, Kota and Anand International College of Engineering, **Jaipur**, June 15-19, **2018**

[20] *"Double Summation Formulae"*, **International Conference on Mathematical Modeling, Applied Analysis and Computation**-2018 at JECRC University, **Jaipur**, July 6-8, **2018**

[21] *"Applications of Weierstrass theorem"*, **TEQIP-III Sponsored National Conference on Recent Advances in Mathematical Applications for Science, Engineering & Management and 30th Annual Conference of Rajasthan Ganita Parishad organized by** Rajasthan Technical University, Kota and Shekhawati Institute of Engineering and Technology, **Sikar**, February 26-27, **2019**

[22] *"Statistical Analysis"*, **TEQIP-III Sponsored Faculty Development Programme on "Introduction to LaTeX and Multivariate Analysis"** organized by Rajasthan Technical University, Kota and Anand International College of Engineering, **Jaipur**, June 1-5, **2019**

[23] Two sessions on *"Matrix Algebra"* and two sessions on *"Special Functions"*, **52nd Refresher Course: Mathematics & Statistics,** Academic Staff College, Sardar Patel University, **Vallabh Vidyanagar**, September 23, 24 and 26, **2019**

[24] "*Some useful special functions of Technology and Engineering*", **International Conference on History and Recent developments in Mathematics with Applications in Science and Technology & Symposium on fixed point theory in memory of Prof. S.L.Singh**, organized by MBICT and Indian society of History of Mathematics, **New Vallabh Vidyanagar** during December 17-19, **2019**

[25] "*Geodesics on unit Sphere: A Differential Geometry Approach*", **Two days online webinars** organized by J.N.M. Patel Science College, **Surat**, June 18-19, **2020**

[26] "*Applications of Partial Differential Equations*" (online lecture), **TEQIP-III Sponsored Faculty Development Programme on "Applications of Mathematical Sciences in Engineering and Technology"** organized by Rajasthan Technical University, Kota at SKIT, **Jaipur**, September 23-27, **2020**

[27] "*Sturm-Liouville fractional differential equations and Conversion*" **Online STTP on Fractional Calculus: Foundations to Frontiers**, organized by SVNIT, **Surat**, December 28, 2020 to January 1, **2021**

[28] "*Devolopment of Error functions and their properties*" **One week online STTP on Mathematical Tools and Techniques for Scientists & Engineers**, organized by SVNIT, **Surat**, December 6-10, **2021**

[29] "*Real life Applications of Total Differentials*" **58th Annual Conference of Gujarat Ganit Mandal, M. N.J. Patel High School, Surat**, December 26-29, **2021**

[30] "*Volterra Integral Equations and its Solutions*" **3rd International Conference on recent Developments in Engineering and Technology,** organized by Anand International College of Engineering, **Jaipur**, February, 25-26, **2022**

[31] "*Resource person for imparting his valuable thoughts*" **International** Training Workshop on Computational Special Functions and Applications**, organized by MathTech Thinking Foundation, April, 05-07, **2022**

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