Certificate

This is to certify that **Mrs. Reshma Rohitkumar Sanjhira** has worked under my guidance for her Ph.D. Thesis work in the subject of Mathematics on the topic entitled

"CERTAIN GENERALIZED MATRIX FUNCTIONS AND THEIR PROPERTIES "

and has put in research for the requisite number of terms as required by the University. This thesis is being submitted herewith for the award of degree of

Doctor of Philosophy
in
Mathematics

and, to the best of my knowledge, no part of this thesis has been submitted by her to any other University or Institution for the same or any other degree.

Dr. B. I. Dave

(Guide)

Professor
Department of Mathematics
Faculty of Science
The M. S. University of Baroda
Vadodara-390-002

Forwarded through:

Head
Department of Mathematics

Dean
Faculty of science

Head
Department of Mathematics
Faculty of Science
The M.S. University of Baroda
Vadodara-390 002

Dean
Faculty of Science
The M.S. University of Baroda
Vadodara.

Certificate

This is to inform to all concered that the following publications have arisen out of the research work carried out by my Ph.D student **Mrs. Reshma R. Sanjhira** who wishes to submit the thesis entitled " **CERTAIN GENERALIZED MATRIX FUNCTIONS AND THEIR PROPERTIES** " to the Department of Mathematics, Faculty of Science, The Maharaja Sayajirao University of Baroda, Vadodara for the award of Ph. D. degree in Mathematics.

- **Reshma Sanjhira** and B. I. Dave, Generalized Konhauser matrix polynomial and its properties, The Mathematics Student, 87 No. 3-4, (2018), 109-120.
  (MR# 3839402, UGC-CARE list)

- **Reshma Sanjhira**, B. V. Nathwani and B. I. Dave, Generalized Mittag-Liffler matrix function and associated matrix polynomials, The Journal of the Indian Math. Soc. 86, No. 1-2, (2019), 161-178.
  (MR#3893796, UGC-CARE list, Scopus, SJR-0.19)

- **Reshma Sanjhira**, A General Matrix Inverse Series Relation and Associated Polynomials -II, Mathematica Slovaca 71, No.2, (2021), 301-316.
  (MR#4243628, Web of Sciences,UGC-CARE list, Scopus, Impact Factor-0.64)

- Ravi Dwivedi and **Reshma Sanjhira**, On the matrix function $_pR_q(A, B; z)$ and its fractional calculus properties, Communication in Mathematics, (**Accepted**).(UGC-CARE list, Scopus)

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Established vide Maharashtra Act No. 13 of 2014, of Government of Maharashtra, and recognised under Section 2 (f) of UGC ACT 1956.
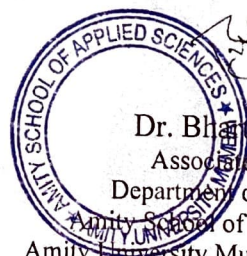
AUM/ASAS/64   Date : 22.07.2021

CERTIFICATE FROM COLLABORATOR

I Permit Mrs. Reshmaben Rohitkumar Sanjhira to include the work she has published jointly with me, in her thesis.

This work has not been used for any other degree, in any other thesis including my own thesis.
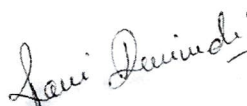
I wish her all the best.

Dr. Bharti V. Nathwani
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Amity University Mumbai, Maharashtra
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CERTIFICATE FROM COLLABORATOR

I permit Ms. Reshma R. Sanjhira to include the work she has published jointly with me, in her thesis.

This work has not been used for any other degree, in any other thesis including my own thesis.

I wish her all the best.

Ravi Dwivedi

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