



Dr. REJI JOHN , Sc-G (Retd)
(PhD, M.Tech & M.Sc)

Retired as Scientist-G & Director
 (Materials & Sponsored Research)
 from NPOL, DRDO, Min. of Defence.
 Gov. of India on 31-07-2022.



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Educational Qualifications

- (1) **Ph.D., 1992** from IIT, Chennai
 (Polymer Technology/ Chemical Engineering)
- (2) **M.Tech, 1987** from Cochin
 University of Science &
 Technology(Polymer Technology)
- (3) **M.Sc., 1985** from Aligarh Muslim
 University (Chemistry)
- (4) **B.Sc., 1982** from Kerala
 University (Chemistry)

Memberships

- (1) American Chemical Society
 (Annual Membership)
- (2) Indian Institute of Smart Structure
 & Systems(Life Member)
- (3) Materials Research Society of India
 (Life Member)

Technical Skills

Personal Details

- **Date of Birth**
 28th July 1962
- **Languages Known**
 English, Hindi

Postal Address

109, Vilaverthottathil, T.B Road,

Profile Summary

RESPOSIBILITIES HELD AT NPOL KOCHI

- **DIVISION HEAD- TECHNOLOGY LEADERSHIP**
- **GROUP DIRECTOR- TECHNOLOGY COLLABORATION AND COORDINATION**
- **PROJECT DIRECTOR (PD)- PROJECT “ MATERIALS, SENSORS & COUNTERMEASURE TECHNOLOGIES FOR SONAR APPLICATIONS”**
- **ASSOCIATE DIRECTOR- TECHNOMANAGERIAL LEADERSHIP & KNOWLEDGE MANAGEMENT**
- **DIRECTOR- MATERIALS & SPONSORED RESEARCH**

Work Experience

Naval Physical and Oceanographic Laboratory- Kochi
Scientist-G (Director-Materials & Sponsored Research)

	Since 2016
Scientist-F	2009-2016
Scientist-E	2004-2009
Scientist-D	1999-2004
Scientist-C	1993-1999
Senior R & D Engineer	1992-1993
(Polyurethane Indian Ltd, Chennai, India)	

AREAS OF EXPERTISE

- **Invention, Innovations & patenting**
- **Polymers & composites**
- **Materials for Defence**
- **Chemistry of Materials**
- **Chemical Engineering & Material Manufacturing**
- **Smart Materials & Devices**

Key Highlights

- **Chairman** - Council for Extramural Research and intellectual Property Rights
- Patents Obtained in USA, UK, Japan, France & India
- Successfully facilitated sever co-researchers (300 no's) for 7 years to protect their invention by filing Indian

**Angamaly, Pin- 683572
Ernakulam (Dt), Kerala , India**

Awards obtained

- **DRDO “Scientist of the Year Award” - 2022**
- DRDO Technology Spin-off Award- 2019
- DRDO Technology Group award - 2018
- National Innovation Award, Min. of Chemicals & fertilizers, Govt of India- 2020
- Science Innovation Award- From Swadeshi Science Movement - 2010
- Smart Technology Award – ISAMPE - 2011
- NPOL - Laboratory Scientist of the year award – 2009
- **Govt. of India identified one of the technologies developed for putting embargo for importing in India - 2020**

patent applications

- Generated 30 patents of various inventions on technology technology-related
- **Chairman**, Council - Contract for Acquisition of Research Services (CARS)
- Sponsored several projects related to materials/ electronics/ sonar / mechanical engineering
- Naval research Board- Member Materials Panel
- Editorial Board Member- International Journal of Nanofluid , USA (2015-2017)
- Guest editor- Defence Science Journal

Key Responsibilities

- Collaborative work with various leading institutes of India like IITs, IISc and CSIR labs, Dept. of S&T labs, etc initiated and completed
- Generated several patents in the USA, UK, Japan, France, and India
- Providing technology leadership for the materials requirements of all NPOL Sonar projects, formulating and funding various subprojects
- Leading the project which aims to deliver 15 different products for the Navy and various other NPOL sonar projects
- Formulation of projects and protection of intellectual property rights of NPOL Technologies
- Provided technology leadership for developing state of the art sonar ancillary materials for enhancing sonar performance & reliability

PUBLICATIONS IN JOURNALS

- 17 international journals 10 national journal papers

PATENTS AWARDED

- **Total 14 patents awarded in USA,UK, Japan, France & India**
- **6 more patents filed are in the advanced stages of granting**

COLLABORATION WITH AGENCIES OUTSIDE INDIA

AGENCY	COLLABORATIVE WORK	YEAR
Defence Science and Technological Agency, Singapore	Studies on towed sensor array materials for defence applications	2011-13
National University of Singapore	Studies on underwater sensors	2012-13

SOME OF THE INVITED TALKS

- Medha’ 22, August 4, 2022, Cochin University of Sci & Tech, Smart Materials & Polymers
- Continuing education programme, DRDO ,NSTL- Vysag , Noise and vibration damping with Polymers , June 20 , 2022

- Continuing Education Programme, Naval Materials Research Laboratory, Mumbai (Feb 2009) National Conference on Smart Materials, Indian Institute of Advanced Studies, Pune (Jan 2010) National conference on intelligent structures, Institute of Engineers, India (May 2020)
- National Conference on Naval Materials, Naval Research Board, Indian Institute of Technology, Mumbai, 2021
- Indian Science Congress , Hyderabad (2019 August)
- National Conference on Advanced Materials, Cochin University of Science and Technology (Sept 2020)
- National Conference on Smart Materials and structures, Indian Society for Advancement of Materials and Process Engineering (May 2014) National Conference on intelligent systems, Aeronautical society of India,)Bangalore (Nov 2019)

PATENTS OBTAINED

PATENT TITLE	PATENT NUMBER	COUNTRY	AWARDED YEAR
Low frequency underwater acoustic projector using a magnetorheological elastomer	241339	India	2011
Magnetorheological Fluid formulation and process for the preparation thereof	6,875,368	USA	2010
Magnetorheological Fluid formulation and process for the preparation thereof	EP1 344229	UK	2012
Magnetorheological Fluid formulation and process for the preparation thereof	EP1 344229	France	2012
Magnetorheological Fluid formulation and process for the preparation thereof	232363	India	2013
Magnetorheological Fluid formulation and process for the preparation thereof	4104978	Japan	2013
A Magneto sensitive fluid composition and process for preparation thereof	6743371	USA	2011
A Magneto sensitive fluid composition and process for preparation thereof	EP 1247283	UK	2012
A Magneto sensitive fluid composition and process for preparation thereof	4303959	Japan	2013
A Magneto sensitive fluid composition and process for preparation thereof	EP 1247283	France	2012
A Magneto sensitive fluid composition and process for preparation thereof	252198	India	2013
A new Titanium metal primer for underwater applications	213437	India	2009

PATENTS FILED

PATENT TITLE	REF. NO	COUNTRY	FILED YEAR
Closed loop feedback controlled Semi-Active Magnetorheological Fluid anti-vibration mount	2967/DEL/2011	India	2011
Acoustic gel for non-cavitating underwater transducer	3822/DEL/2012	India	2012
time anti Vibration Suspension System using nanofluid	606/DEL/2013	India	2013
Low density acoustic gel for towed sensor array	ERIP/IP/1401067/M/01 (2014)	India	2014
Rubber anti-vibration mount	202111058805	India	2021

