

BIO-DATA - Kesavan Ravi

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5. **Date of Birth:** 13/11/1990
6. **Gender (M/F/T):** M
7. **Category Gen/SC/ST/OBC:** Gen
8. **Whether differently abled:** No
9. **Academic Qualification (Undergraduate Onwards)**

	Degree	Year	Subject	University/Institution	% of marks
1.	B.Tech.	2012	Metallurgical and Materials Engineering	Visvesvaraya National Institute of Technology	7.95/10
2.	MS	2014	Mechanical Engineering	Tohoku University	3.83/4
3.	PhD	2017	Mechanical Engineering	Tohoku University	NA

10. Ph.D thesis title, Guide's Name, Institute/Organization/University, Year of Award.

Institute	Guide's name	Year of Award	Ph.D thesis title
Tohoku University	Prof. Kazuhiro Ogawa, Prof. Olivier Lame, Prof. Jean-Yves Cavaille	2017	Mechanistic understanding of high strain rate impact behavior of ultra-high molecular weight polyethylene and the mechanism of coating formation during cold spraying

11. Work experience (in chronological order).

S.No.	Positions held	Name of the Institute	From	To	Pay Scale
1	JSPS Postdoctoral Fellow	Tohoku University	01-10-2017	31-03-2019	200000 yen/month

2	Assistant Professor (Adhoc)	National Institute of Technology, Warangal	05-08-2019	13-12-2019	Rs. 60000/month
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12. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received

S.No	Name of Award	Awarding Agency	Year
1	Scientific High Level Visiting Fellowship	Institute of France in India, French Embassy in India	2023
2	JSPS Fellowship (DC & PD)	Japan Society for Promotion of Science	2017
3	Tohoku University Presidents Fellowship	Tohoku University	2016
4	Grand Prize at 15th Challenge Cup 2017	CEFC China Energy Corporation Limited	2017
5	Best Poster Award	ELyT Lab International Workshop	2015
6	Best Poster Award	6th Asian Thermal Spray Conference	2014
7	Award for Young Engineer	Japan Thermal Spray Society JTSS	2015

13. Publications.

S.No.	Author(s)	Title	Name of Journal	Volume	Page	Year
1	Manish Kumar Singh, B Nithin, Kesavan Ravi, MR Rahul	Simulation-guided design of novel precipitation-strengthened eutectic high entropy alloy	Intermetallics	175	108501	2024
2	Manohar Kumar, Kesavan Ravi, Sarthak S Singh	Temperature and strain rate effects on ultra-high-molecular-weight-polyethylene compression: An experimental and modeling approach.	Polymer Engineering & Science	64(5)	2214-2229	2024
3	Manohar Kumar, Kesavan Ravi, Sarthak S Singh	Predicting the double-yield phenomenon in low-density polyethylene film using three-network viscoplastic model	Mechanics of Materials	184	104736	2023
4	S Zhou, CA Bernard, K Ravi, H Saito, Y Ichikawa, K Ogawa, S Yin	Development and characterization of photocatalytic GaN coatings by cold spray process	Journal of Thermal Spray Technology	30	1294-1309	2021

5	CA Bernard, Hidemasa Takana, G Diguët, K Ravi, O Lame, Kazuhiro Ogawa, J-Y Cavaillé	Thermal gradient of in-flight polymer particles during cold spraying	Journal of Materials Processing Technology	286	116805	2020
6	Wesley Lock Sulen, Kesavan Ravi, Chrystelle Bernard, Yuji Ichikawa, Kazuhiro Ogawa	Deposition Mechanism Analysis of Cold-Sprayed Fluoropolymer Coatings and Its Wettability Evaluation	Journal of Thermal Spray Technology	29	1643-1659	2020
7	Kesavan Ravi, Tiana Deplancke, Olivier Lame, Kazuhiro Ogawa, Jean-Yves Cavaillé, Florent Dalmas	Influence of nanoceramic interlayer on polymer consolidation during cold-spray coating formation	Journal of Materials Processing Technology	273	116254	2019
8	Kesavan Ravi, Wesley Lock Sulen, Chrystelle Bernard, Yuji Ichikawa, Kazuhiro Ogawa	Fabrication of micro-/nano-structured super-hydrophobic fluorinated polymer coatings by cold-spray	Surface and Coatings Technology	373	17-24	2019
9	Kesavan Ravi, Tiana Deplancke, Kazuhiro Ogawa, Jean-Yves Cavaillé, Olivier Lame	Understanding deposition mechanism in cold sprayed ultra high molecular weight polyethylene coatings on metals by isolated particle deposition method	Additive Manufacturing	21	191-200	2018
10	Tiana Deplancke, Olivier Lame, Sophie Barrau, Kesavan Ravi, Florent Dalmas	Impact of carbon nanotube prelocalization on the ultra-low electrical percolation threshold and on the mechanical behavior of sintered UHMWPE-based nanocomposites	Polymer	111	204-213	2017

11	Kesavan Ravi, Yuji Ichikawa, Kazuhiro Ogawa, Tiana Deplancke, Olivier Lame, Jean-Yves Cavaille	Mechanistic Study and Characterization of Cold-Sprayed Ultra-High Molecular Weight Polyethylene-Nano-ceramic Composite Coating	Journal of Thermal Spray Technology	25	160-169	2016
12	Kesavan Ravi, Yuji Ichikawa, Tiana Deplancke, Kazuhiro Ogawa, Olivier Lame, Jean-Yves Cavaille	Development of ultra-high molecular weight polyethylene (UHMWPE) coating by cold spray technique	Journal of Thermal Spray Technology	24	1015-1025	2015

14. Detail of patents.

S.No	Patent Title	Name of Applicant(s)	Patent No./Application number	Agency/Country	Status
1	Cold spray powder, the polymeric coating preparation and polymeric coating	<u>Kesavan Ravi, Yuji Ichikawa, Kazuhiro Ogawa, Tiana Deplancke, Olivier Lame, Jean-Yves Cavaille</u>	JP6341505B2	Japan	Granted
2	A device to clean ambient air with filter cloth and a method of recovery thereof	<u>Kesavan Ravi, Pankaj Kumar Jain</u>	508409	India	Granted
3	A polymer-based composite for passive day time radiative cooling (PDRC) and a process for the preparation thereof	<u>Kesavan Ravi, Soumya Ranjan</u>	202231050036	India	Published
4	A polymer-based passive day time radiative cooling (PDRC) material and a process for the preparation thereof	<u>Kesavan Ravi, Soumya Ranjan</u>	202231050039	India	Published

15. General articles

S. No	Title	Author's Name	Publisher	Year of Publication
1.	Development of High Functional Polymer/Metal and Polymer/Ceramic Integrated Systems "Dream Beyond Your Dreams	Kesavan Ravi	Japan Thermal Spray Society	2015

16. R&D projects undertaken

S. No	Title	Cost	Duration	PI/Co-PI	Agency	Present Status
1	Pure Iron Oxide Synthesis from Ferrous Chloride	Rs. 2,47,025	11 Months	PI	Nipuna International	Completed
2	Advanced Wear and Corrosion Resistance Coatings Development and Commercialization in India	Rs. 5,78,74,742	5 years	Co-PI	DST	Ongoing
3.	Electron Microscopy Facility for Reclamation and Alloy Development (FIST 2022)	Rs. 11700000	5 years	Co-PI	DST	Ongoing
4	Formation of spray technique for sand crust with binder solution and laboratory testing of sand crust	DLJ/PP&C/1025/CAR S-83	7.46	Co-PI	DRDO	Ongoing
5	Design and development of High Entropy Shape Memory alloys for actuator	ARDB/M&M/4119/2144	29.62	Co-PI	DRDO	Ongoing

	application in the defence sector					
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