


<b>Name of the Teaching Staff</b>	J David Raja Selvam, M.E., Ph.D., Post-Doc.(SA)				
<b>Designation</b>	Assistant Professor				
<b>Department/ School</b>	Robotics Engineering/ SET				
<b>Date of Joining the Institution</b>	17 – 07 – 2007				
<b>Qualification with Class / Grade</b>	<b>UG</b>	<b>PG</b>	<b>Ph.D.</b>		
	II Class	I Class	Commendable		
<b>Other Qualifications</b>	Diploma in Mechanical Engineering				
<b>Research Experience</b>	<b>Post-Doctoral Research Fellowship</b> , Department of Mechanical & Industrial Engineering, University of Johannesburg (Nov, 2016 to July 2018)				
<b>Area of Specialization</b>	CAD/CAM, Additive Manufacturing, Design & Manufacturing				
<b>Research Interests</b>	<ul style="list-style-type: none"> <li>• Digital Manufacturing</li> <li>• Additive Manufacturing,</li> <li>• Surface Composites</li> <li>• Friction Stir Processing</li> <li>• Laser Welding</li> </ul>				
<b>Total Experience in Years</b>	<b>Teaching</b>		<b>Industry</b>		<b>Research</b>
	16 years & 6 Months		3 Years & 11 months		1 Years & 10 Months
<b>Papers Published</b>	National	-		International	<b>40</b>
<b>Papers Presented in Conference</b>	National	<b>9</b>		International	<b>1</b>
<b>Seminars/ Workshops Participated</b>	<b>15</b>				
<b>FDP/ STTP/MDP/ Summer/Winter School attended</b>	<b>5</b>				
<b>Ph.D. Projects Guided</b>	Ph.D.s	-	Project at Masters Level	<b>4</b>	
<b>Professional Memberships</b>	<ul style="list-style-type: none"> <li>• LIFE MEMBER IPE</li> <li>• IAENG</li> <li>• LIFE MEMBER WELDING SOCIETY OF INDIA</li> </ul>				
<b>Educational Details</b>	<ul style="list-style-type: none"> <li>• Karunya University – Coimbatore, Tamilnadu, Ph.D. in Mechanical Engg, September 2016</li> <li>• Karunya University – Coimbatore, Tamilnadu, M.Tech in Engineering Design, May 2006</li> <li>• MS University – Tirunelveli, Tamilnadu, B.E. Mechanical Engg, May 2000</li> <li>• Lakshmi Ammal Polytechnic – Kovilpatti, Tamilnadu, Diploma in Mechanical Engg. May 1996</li> </ul>				
<b>Experience</b>	16 Years & 6 Months				

<b>Contact Details</b>	Dr. J David Raja Selvam Assistant Professor, Division of Robotics, Karunya Institute of Technology and Sciences j davidrajaselvam@karunya.edu
<b>Project Completed</b>	CARS Project on “ <b>Study on Ballistic Performance of Armour System Using Aluminium Metal Matrix Composite Foam</b> ” (Principal Investigator), 2018-2021, <b>Rs. 22, 91,012/-</b> .
<b>Awards/Prizes/Honors Received</b>	<ul style="list-style-type: none"> <li>• <b>Fourteen</b> technical articles were listed in Top 25 hottest articles in Elsevier journals</li> <li>• Post-Doctoral Research Fellowship, University of Johannesburg, 2014</li> <li>• AWARD WINNER at the ‘India’s Inspiring Teachers’ Summit &amp; Awards 2021’ to be held on 30th June 2021</li> </ul>
<b>Research Collaboration</b>	<ul style="list-style-type: none"> <li>• Department of Mechanical and Industrial Engineering, University of Johannesburg, Johannesburg, South Africa.</li> <li>• Department of Mechanical Engineering, Nelson Mandela University, Port Elizabeth, 6001, South Africa</li> <li>• IDM-Joint Lab, Department of Mechanical Engineering, Tsinghua University, Beijing, 100084, China</li> <li>• Mechanical Engineering Department, Mersin University, Mersin, Turkey</li> <li>• Faculty of Informatics, Savaria Institute of Technology, Eötvös Loránd University, Szombathely, Hungary</li> </ul>
<b>Papers Published</b>	<ul style="list-style-type: none"> <li>• J. David Raja Selvam, D.S. Robinson Smart, I. Dinaharan, Microstructure and some mechanical properties of fly ash particulate reinforced AA6061 aluminum alloy composites prepared by compocasting. <i>Materials and Design</i> 49 (2013) 28–34 (<b>Impact factor 8.4</b>)</li> <li>• J David Raja Selvam. Smart, D. R., &amp; Dinaharan, I. (2013). Synthesis and Characterization of Al6061-Fly Ash p-SiC p Composites by Stir Casting and Compocasting Methods. <i>Energy procedia</i>, 34, 637-646. (<b>Impact factor 1.25</b>)</li> </ul>

- J. David Raja Selvam (2015). Production and characterization of rich husk ash particulate reinforced AA6061 aluminum alloy composites by compocasting. Transactions of Nonferrous Metals Society of China, 25(3), 683-691. **(Impact Factor: 4.5)**
- J. David Raja Selvam, D.S. Robinson Smart, I. Dinaharan, Influence of fly ash particles on dry sliding wear behaviour of AA6061 aluminium alloy. Kovove Mater. 54 2016 1–9 **(Impact Factor: 0.8)**
- J David Raja Selvam et al. "Microstructure and mechanical properties characterization of AA6061/TiC aluminum matrix composites synthesized by in situ reaction of silicon carbide and potassium fluotitanate." Transactions of Nonferrous Metals Society of China 26.7 (2016): 1791-1800. **(Impact Factor: 4.5)**
- Ruban, S. Rajesh, K. Leo Dev Wins, J. David Raja Selvam, and A. Arun Richard. "Effect of Dry Sliding Wear Behaviour of AA6061/ZrB<sub>2</sub>/SiC Hybrid Composite." International Journal of Vehicle Structures & Systems 8, no. 2 (2016): 108.
- J David Raja Selvam, I. Dinaharan., Formation of nano and sub-micron level ZrB<sub>2</sub> particulates and their influence on microstructure and tensile behavior of AA7075 aluminum matrix composites. Engineering Science and Technology, an International Journal. 20.1 (2017): 187-196. **(Impact Factor: 5.7)**
- David Raja Selvam, J., I. Dinaharan, and P. M. Mashinini. "High temperature sliding wear behavior of AA6061/fly ash aluminum matrix composites prepared using compocasting process." Tribology-Materials, Surfaces & Interfaces (2017): 1-8. **(Impact Factor: 1.88)**
- J David Raja Selvam (2017). Dry sliding wear behavior of AA6061 aluminum alloy composites reinforced rice husk ash particulates produced using compocasting. Journal of Asian Ceramic Societies, 5(2), 127-135. **(Impact Factor: 2.395)**
- David Raja Selvam (2018). Turning characteristics of in situ formed TiB<sub>2</sub> ceramic particulate reinforced AA7075 aluminum

matrix composites using polycrystalline diamond cutting tool. Measurement, 121, 39-46. **(Impact Factor: 5.6)**

- David Raja Selvam (2018). Microstructure and mechanical characterization of in situ synthesized AA6061/(TiB<sub>2</sub>+ Al<sub>2</sub>O<sub>3</sub>) hybrid aluminum matrix composites. Journal of Alloys and Compounds. 740(2), 529-535. **(Impact Factor: 6.2)**
- David Raja Selvam (2018). Microstructure evolution and mechanical characterization of friction stir welded titanium alloy Ti-6Al-4V using lanthanated tungsten tool. Materials Characterization, 139, 328-336. **(Impact Factor: 4.7)**
- J David Raja Selvam (2018). Predicting the effect of machining parameters on turning characteristics of AA7075/TiB<sub>2</sub> in situ aluminum matrix composites using empirical relationships. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 40(12), 555. **(Impact Factor: 1.75)**
- David Raja Selvam (2018). Effect of dry sliding wear behavior of A356/TiB<sub>2</sub> aluminium composite. International Journal of Mechanical Engineering and Technology (IJMET) 9(11), 192-197.
- David Raja Selvam (2019). Microstructural characterization and tensile behavior of friction stir processed AA6061/Al<sub>2</sub>Cu cast aluminum matrix composites. Journal of Alloys and Compounds. 781, 270-279. **(Impact Factor: 6.2)**
- David Raja Selvam, J (2019). Dry sliding wear behaviour of in-situ fabricated TiC particulate reinforced AA6061 aluminium alloy. Tribology-Materials, Surfaces & Interfaces, 1-11. **(Impact Factor: 1.88)**
- David Raja Selvam (2019) et al., Microstructural Characterization and Tensile Behavior of Rutile (TiO<sub>2</sub>)-Reinforced AA6063 Aluminum Matrix Composites Prepared by Friction Stir Processing, Acta Metallurgica Sinica (English Letters), 8, pp. 1-12. <https://doi.org/10.1007/s40195-018-0806-5> **(Impact Factor: 3.5)**

- David Raja Selvam (2018) Simultaneous improvement of tensile strength and ductility of AA6063 aluminum matrix composites by reinforcing vanadium particles using friction stir processing. Composite Communication. 12, 54-58. **(Impact Factor: 8)**
- J David Raja Selvam (2019) Microstructure Characterization of in-situ formed Al<sub>2</sub>O<sub>3</sub>-TiB<sub>2</sub> AMCs particles on AA6061 aluminium matrix composites. Material Today Proceedings. 16, 574-578. **(Impact Factor: 1.09)**
- J David Raja Selvam (2019) Role of zirconium diboride particles on microstructure and wear behaviour of AA7075 in situ aluminium matrix composites at elevated temperature." Tribology-Materials, Surfaces & Interfaces 13.4: 230-238. **(Impact Factor: 1.88)**
- J David Raja Selvam (2019) Experimental investigation and characterization of in situ synthesized sub-micron ZrB<sub>2</sub>-ZrC particles reinforced hybrid AA6061 aluminium composite." Materials Research Express 6.10 (2019): 1050e1. **(Impact Factor: 1.49)**
- J David Raja Selvam (2020). "Experimental Investigation on the Friction and Wear Characteristics of Palm Seed Powder Reinforced Brake Pad Friction Composites." Journal of the Institution of Engineers (India): Series D: 1-9. **(Impact Factor: 0.753)**
- J. David Raja Selvam (2021). Optimization of cutting parameters of hybrid metal matrix composite AA6061/ZrB<sub>2</sub> and ZrC during dry turning." In IOP Conference Series: Materials Science and Engineering, vol. 993, no. 1, p. 012135. IOP Publishing, 2020.
- J David Raja Selvam (2021) In-situ Synthesis and Microstructural Characterization of AA6061/(TiB<sub>2</sub> +TiC) particles in AA6061 Aluminium Composite. Materials Today Procedia (Accepted for Publication). **(Impact Factor: 1.09)**
- J David Raja Selvam (2021) "Microstructure and sliding wear behavior of fly ash reinforced dual phase brass surface composites synthesized through friction stir processing."

Materials Chemistry and Physics (2021): 124430. **(Impact Factor: 4.6)**

- J David Raja Selvam (2021), Influence of turning parameters on the machinability of Al6061/ZrB<sub>2</sub> & ZrC hybrid in-situ Aluminium Matrix Composite. Australian Journal of Mechanical Engineering (2021) Accepted doi.org/10.1080/14484846.2021.1963081
- J David Raja Selvam (2021), In-situ synthesis and microstructural characterization of AA6061/(TiB<sub>2</sub>+ TiC) particles in AA6061 aluminium composite. Materials Today: Proceedings. 2021 Jan 1; 43:2255-8.
- J David Raja Selvam (2021), Microstructure and mechanical characterization of Nd: YAG laser beam welded AA6061/10 wt% ZrB<sub>2</sub> aluminum matrix composites. Optics & Laser Technology. 2021 Aug 1; 140:107084. **(Impact Factor: 5)**
- J David Raja Selvam (2022). Electromagnetic interference shielding effectiveness of in situ-synthesized ultrafine SiC-and Al<sub>2</sub>O<sub>3</sub>-reinforced AA6061 aluminum matrix composites. Journal of Materials Science: Materials in Electronics, pp.1-12. **(Impact Factor: 2.8)**
- J David Raja Selvam (2022). Microstructure evolution and high cycle fatigue failure behavior of friction stir-welded Ti-6Al-4V at varying welding speeds. The International Journal of Advanced Manufacturing Technology. 2022 Oct; 122 (9):4041-54. **(Impact Factor: 3.4)**
- J David Raja Selvam (2023), Influence of Fly Ash Particles on Machining Characteristics of AA6061 Aluminum Matrix Composites Produced Using Semisolid Slurry Casting. Transactions of the Indian Institute of Metals. 2023 Jan 13:1-6. **(Impact Factor: 1.6)**
- J David Raja Selvam (2023), Microstructure and Wear Performance of Fly Ash-Reinforced Copper Matrix Composites Prepared via Powder Metallurgy, Journal of Materials Engineering and Performance, 1-16. **(Impact Factor: 2.3)**

	<ul style="list-style-type: none"> <li>• J David Raja Selvam (2023), Influence of particle content and temperature on dry sliding wear behavior of rice husk ash reinforced AA6061 slurry cast aluminum matrix composites, Tribology International 183, 108406. <b>(Impact Factor: 6.2)</b></li> </ul>
<p><b>Conferences</b></p>	<ul style="list-style-type: none"> <li>• J. David Raja Selvam, D.S. Robinson Smart, “Welding of Cast Al/SiC/10p Composite Material by TIG ARC Welding using Unreinforced Filler Alloy (Al-Si)”, RAMP2011, Coimbatore, published in the conference proceedings.</li> <li>• J. David Raja Selvam, D.S. Robinson Smart, I. Dinaharan, “Synthesis and characterization of Al6061-Fly Ashp-SiCp composites by stir casting and compocasting methods”, EMSES 2012, Thailand, Published in conference Proceedings, pp. 560-563.</li> <li>• J. David Raja Selvam, D.S. Robinson Smart, I. Dinaharan, “Production and characterization of aa6061 matrix silicon carbide and fly ash reinforced composite by stir casting process”, ISRS-2012, IIT Madras, Published in conference proceeding, pp. 465.</li> <li>• Jerrin John, David Raja Selvam, Robinson Smart. D.S, ‘Machinability of Cast Al6061 Alloy Reinforced by Fly Ash Particulates’ in the International Colloquium on Materials, Manufacturing and Metrology (ICMMM 2014), held at IIT Madras, Chennai, during 8-9, August 2014.</li> <li>• Jeshurun L.K, David Raja Selvcam J, Vijay S.J, ‘Fabrication and Characterization of In-situ Formed TiC Particles on AA6061 Metal Matrix Composites’, in the International Conference on Advances in Materials and Materials Processing, Karunya University, January 22-23, 2015.</li> <li>• S. Rajesh Ruban, Leo Dev Wins, David Raja Selvam “AA6061Matrix Reinforced with Insitu formed ZrB2 particles and Silicon Carbide hybrid composite” at INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY held from 14th - 15th October 2014 at Le Meridian pune India</li> </ul>

	<ul style="list-style-type: none"> <li>• Rajesh Ruban S., Leo dev Win, David Raja Selvam J., Arun Richard., ‘Effect of dry sliding wear behavior of AA6061/Zrb2/SiC Hybrid Composite’ in the 2nd International Conference on Advanced Engineering and Technology for Sustainable Development (ICAETSD 2016) held at Karpagam College of Engineering, Coimbatore during 19-20, February 2016.</li> <li>• David Raja Selvam J., Robinson Smart D.S., Rajesh Ruban S., ‘The tensile behavior of P-GTA welds obtained with indirect electric arc on compocast AA6061/Fly ash composite’ in the 2nd International Conference on Advanced Engineering and Technology for Sustainable Development (ICAETSD 2016) held at Karpagam College of Engineering, Coimbatore during 19-20, February 2016</li> <li>• Rai RS, Palanivel R, Selvam J David Raja Selvam. In-situ synthesis and microstructural characterization of AA6061/(TiB<sub>2</sub>+ TiC) particles in AA6061 aluminium composite. Materials Today: Proceedings. 2021 Jan 1; 43:2255-8.</li> </ul>
<b>Book Chapters</b>	<ul style="list-style-type: none"> <li>• J David Raja Selvam (2020). "Matrix and Reinforcement Materials for Metal Matrix Composites." Elsevier: Encyclopedia of Materials: Composites, edited by Dermot Brabazon. <b>(Citation: 51)</b></li> </ul>
<b>Reviewer</b>	<ul style="list-style-type: none"> <li>• Material &amp; Design (Elsevier)</li> <li>• Journal of Alloys &amp; Compounds (Elsevier)</li> <li>• Transactions of Nonferrous Metals Society of China (Elsevier)</li> <li>• Material Physics and Chemistry (Elsevier)</li> <li>• Journal of Materials Engineering and Performance (Springer)</li> </ul>