

Name of Faculty Dr. Ashutosh Sahu  
 Designation Assistant Professor  
 Nature of Job/Appointment Regular  
 Date of Joining 07-03-2022  
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Education Qualifications	Name of the Degree	Class
Ph.D.	Doctor of Philosophy (Metallurgical and materials engineering), IIT Kharagpur	Awarded
PG	M.Tech (Metallurgical Engineering) IIT-BHU Varanasi	First class
UG	B.Tech (Mechanical Engineering) GIET Gunupur under BPUT Odisha	First class

Work Experience	
Teaching	2 years and 4 months
Research	2 years and 6 months
Industry	1 year and 10 months
Others	---

Area of Specialization Powder metallurgy, physical metallurgy, metal forming, foundry

Professional Memberships

Responsibilities held at Institution Level

Responsibilities held at Department Level

Research Guidance

Awards Received --

Courses Handled at Under Graduate / Post Graduate Level --

No. of Papers Published	National Journals – 00	International Journals – 12
	National Conference – 00	International Conference – 02

Projects Carried out --

Patents --

Technology Transfer --

Invited Speaker --

No. of Books/Chapter Published with details --

Details of Short-Term Training Programs / Faculty Development Programs / Seminars / Workshops. Other Trainings (**Attended and/or Organized**) 4 attended

Details of Journal Publications / Conferences (**National and International**)

### International Journal:

1. **A. Sahu**, R.S. Maurya, L.K. Singh, T. Laha, Analyzing the effects of milling and sintering parameters on crystalline phase evolution and mechanical properties of Al<sub>86</sub>Ni<sub>8</sub>Y<sub>6</sub> and Al<sub>86</sub>Ni<sub>6</sub>Y<sub>4.5</sub>Co<sub>2</sub>La<sub>1.5</sub> amorphous ribbons, <https://doi.org/10.1007/s40195-021-01341-y>.
2. **A. Sahu**, R.S. Maurya, S. Dinda, T. Laha, Phase evolution-dependent nanomechanical properties of Al<sub>86</sub>Ni<sub>8</sub>Y<sub>6</sub> and Al<sub>86</sub>Ni<sub>6</sub>Y<sub>4.5</sub>Co<sub>2</sub>La<sub>1.5</sub> spark plasma-sintered bulk amorphous composites, *Metallurgical and Materials Transactions A* 51A (2020) 5110-5119.
3. R.S. Maurya, **A. Sahu**, T. Laha, Nanoindentation study on Al<sub>86</sub>Ni<sub>8</sub>Y<sub>6</sub> glassy alloy synthesized via mechanical alloying and spark plasma sintering, *International Journal of Materials Research* 111 (2020) 1-8.
4. **A. Sahu**, R.S. Maurya, T. Laha, Non-isothermal crystallization behavior of Al<sub>86</sub>Ni<sub>8</sub>Y<sub>6</sub> and Al<sub>86</sub>Ni<sub>6</sub>Y<sub>4.5</sub>Co<sub>2</sub>La<sub>1.5</sub> melt-spun ribbons, milled ribbon particles and bulk samples consolidated by spark plasma sintering, *Thermochimica Acta* 684 (2020) 1-11.
5. **A. Sahu**, R.S. Maurya, T. Laha, Comparative study on sintering behavior of Al<sub>86</sub>Ni<sub>6</sub>Y<sub>4.5</sub>Co<sub>2</sub>La<sub>1.5</sub> mechanically alloyed amorphous powder and melt-spun ribbon, *Advanced Powder Technology* 30 (2019) 691-699.
6. **A. Sahu**, R.S. Maurya, T. Laha, Effect of sintering temperature on phase evolution of Al<sub>86</sub>Ni<sub>6</sub>Y<sub>4.5</sub>Co<sub>2</sub>La<sub>1.5</sub> bulk amorphous composites synthesized via mechanical alloying and spark plasma sintering, *Progress in Natural Science: Materials International* 29 (2019) 32-40.
7. T. Thomas, C. Zhang, **A. Sahu**, P. Nautiyal, A. Loganathana, T. Laha, B. Boesl, A. Agarwal, Effect of graphene reinforcement on the mechanical properties of Ti<sub>2</sub>AlC ceramic fabricated by spark plasma sintering, *Materials Science and Engineering A* 728 (2018) 45-53.
8. A. Loganathan, **A. Sahu**, C. Rudolf, C. Zhang, S. Rengifo, T. Laha, B. Boesla, A. Agarwal, Multi-scale tribological and nanomechanical behavior of cold sprayed Ti<sub>2</sub>AlC MAX phase coating, *Surface and Coatings Technology* 334 (2018) 384-393.
9. R.S. Maurya, **A. Sahu**, T. Laha, Effect of sintering temperature on phase transformation during consolidation of mechanically alloyed Al<sub>86</sub>Ni<sub>6</sub>Y<sub>6</sub>Co<sub>2</sub> amorphous powders by spark plasma sintering, *Journal of Non-Crystalline Solids* 453 (2016) 1-7.
10. R.S. Maurya, **A. Sahu**, T. Laha, Microstructural and phase analysis of Al based bulk metallic glass synthesized by mechanical alloying and consecutive spark plasma sintering with varying consolidation pressure, *Advanced Materials Letters* 7 (2016) 187-191.
11. R.S. Maurya, **A. Sahu**, T. Laha, Quantitative phase analysis in Al<sub>86</sub>Ni<sub>8</sub>Y<sub>6</sub> bulk glassy alloy synthesized by consolidating mechanically alloyed amorphous powder via spark plasma sintering, *Materials and Design* 93 (2016) 96-103.
12. R.S. Maurya, **A. Sahu**, T. Laha, Effect of consolidation pressure on phase evolution during sintering of mechanically alloyed Al<sub>86</sub>Ni<sub>8</sub>Y<sub>6</sub> amorphous powders via spark plasma sintering, *Materials Science and Engineering A* 649 (2016) 48-56.

### International Conferences:

1. **A. Sahu**, A. Behera, Semi-solid processing and tribological characteristics of Al-Cu Alloy, *Materials Today: Proceedings* 2 (2015) 1175-1182.
2. A. Behera, S. Aich, a. Behera, **A. Sahu**, processing and characterization of magnetron sputtered Ni/Ti thin film and their annealing behaviour to induce shape memory effect, *Materials today: proceedings* 2 (2015) 1183-1192.