

Name and Surname Lavanya Rani Ballam

## EDUCATION AND TRAINING

Nov 2018 – Sep 2022 **PhD in Electrical, Materials and Nanotechnology Engineering**

Sapienza University of Rome, Facolt'di Ingegneria Civile e Industriale  
Via Eudossiana 18,00184 Roma (Italy)  
[www.uniroma1.it](http://www.uniroma1.it)

Oct 2015–Jul 2018 **Masters in Materials Engineering and Nano Technology**

Politecnico Di Milano  
Piazza Leonardo da Vinci,32, 20133 Milano (Italy)  
[www.polimi.it](http://www.polimi.it)

### **Main subjects**

- Surface Engineering and Technology, Solid State Physics, Mechanical Behaviour and Durability of Polymers and metals, Corrosion Behaviour of metals and ceramics, Advanced chemistry and materials, Photonics, Introduction to Nano Structured Materials, Composite metals, Functional Materials, Structural Mechanics.

1 Oct 2011–4 Apr 2015 **Bachelors in metallurgical and Materials Engineering**

Rajiv Gandhi University Of Knowledge And Technologies  
Mylavaram Road, Andhra Pradesh, 521202 Nuzvid (India)  
[www.rgukt.in](http://www.rgukt.in)

### **Main Subjects:**

- Mechanical Metallurgy, Iron and Steel Making, Physical Metallurgy, Composite Materials, Fracture Mechanics, Material Characterization, Structure and Property of materials, Thermodynamics, Failure and control of metals, Powder Metallurgy, Corrosion.

2 Dec 2013–14 Dec 2013 **Industrial Trainee**

"Rashtriya Ispat Nigam Limited", Vishakapatnam (India)

I trained in Medium Merchant Structural Mills which is a Manufacturing unit such as rails, Bars and Rods.

31 May 2014–28 Jun 2014 **Industrial Trainee**

"Mishra Dhatu Nigam Limited", Hyderabad (India)

I have an experience in Super alloys production, Manufacturing and Quality check-up department.

## PERSONAL SKILLS

Mother tongue(s) Telugu [native of India]

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Italian	A1	A2	A1	A1	A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user  
Common European Framework of Reference for Languages

Communication skills -Good Team Worker, Enthusiastic to learn new things  
-Strong Determination towards work, Adoptable to New Environment

Organisational / managerial skills - Good organisational skills gained as Organizer of TECKZITE 2K15 Tech fest  
- conducted cultural events for CYGNUS'13 Annual Celebrations.

Job-related skills Python, Ms Office, Origin Lab, Matlab and Abaqus (Basics)

## ADDITIONAL INFORMATION

- Academic Presentations and Projects
- **"Friction Stir Processing Of Carbon Nano Tubes Into The Aluminum Matrix"**: enhance mechanical performance of Aluminium matrix with incorporating Carbon Nano Tubes. The applications are in aerospace and light weight unit's productions with high strength.
  - **"Study of Plasma Electrolytic Oxidation of ZM21 Magnesium Alloy"**: The aim is to improve corrosion resistance of ZM21 and AM60B magnesium alloys and replace steel with the magnesium alloys in wide applications because of its high strength to weight ration and light weight.
  - **"Characterization of the graphene-based polymer nano composite film"**: Performed contact angle measurements on water resistant and antimicrobial graphene-based polymer nanocomposite films.
  - **"Contact angle measurement of polymer nanocomposite loaded with graphene nanostructures and zinc oxide"**: Performed contact angle measurements on water resistant and antimicrobial graphene-based spray coated substrates such as plastic, leather and metal substrates used in hospital environments.
  - **"Development of Graphene-based Sensors to be Integrated in a Smart Textiles"**: The main idea of this research work is the development of innovative graphene-based sensors for non-invasive physiological health monitoring applications.

## References

- Prof.ssa Silvia Franz  
Mail: [silvia.franz@polimi.it](mailto:silvia.franz@polimi.it) Telephone: +39 3896865753 websites: [www.polimi.it](http://www.polimi.it)
- Prof. ssa Maria Sabrina Sarto  
Mail: [mariasabrina.sarto@uniroma1.it](mailto:mariasabrina.sarto@uniroma1.it) Telephone: +39 0649690074 websites: [www.uniroma1.it](http://www.uniroma1.it)

## Declaration

I (Ballam Lavanya Rani) hereby declare that the information given above is true to the best of my knowledge.