



**The Indian Institute of Metals, Varanasi Chapter
& the Student Affiliate Chapter**

and

**Department of Metallurgical Engineering,
Indian Institute of Technology (BHU), Varanasi**

Cordially invite you to attend

**IIM@75 - Monthly Webinar Series (MWS)
(as part of Platinum Jubilee Celebrations)**

on

“ The Power of Mesoscale Modelling in Materials Processing ”

**(to be held online)
November 24, 2021**

Distinguished Speaker:

Prof. Cecilia Poletti

TU Graz, Austria

Online Link: <https://meet.google.com/xgn-oedk-eyn>



Prof. Cecilia Poletti

TU Graz, Austria

Date: November 24, 2021

Time: 03.30 – 04.30 PM

Online Link: <https://meet.google.com/xgn-oedk-eyn>

“The Power of Mesoscale Modelling in Materials Processing”

Thermomechanical treatments are widely used to modify the microstructure and give shape to metallic products. Wrought alloys are the usual choice when a combination of fatigue resistance and high strength is required. Thermomechanical treatments consist of several amounts of hot and/or cold deformation steps, followed or alternated with heat treatments. Although experiments are irreplaceable at the laboratory scale to identify and explain metallurgical phenomena, they cannot describe and predict the microstructural changes within the workpiece. The materials modelling and finite element simulation are applied especially for materials design, materials variations and modifications in the processing route. In this talk, I will give an introduction about mesoscale physical models and its application for the processing of titanium alloys. Financial support of the Christian Doppler Society and FWF Agency (project number P 29727) are acknowledged.

Brief Biodata

Prof. Cecilia Poletti studied Chemical Engineering at the Universidad Nacional del Comahue, in Argentina. In 2005 she got her Ph.D. at the Vienna University of Technology, and continued her post-doc after completion of Ph.D. In 2011 she obtained the tenure track position at IMAT, where she is now involved in teaching and research. She completed her habilitation in “Materials Science” in 2012 and holds an Assoc. Prof. position since June 2014. Her area of research involves thermal and thermomechanical processing of alloys. She is the Head of a CD Laboratory since May 2017 and also Deputy Head of the Institute of Materials Science, Joining and Forming at TU Graz. She has many prizes in her credit such as Masing-Gedächtnispreis (2013), Best performance in Metallurgical research of young scientists by German Society of Materials DGM.

Agenda

3:30 pm: Welcome address by Dr. Vikas Jindal, Chairperson, IIM Varanasi Chapter

3:31 pm: Chief Guest Address by Prof. Amol. A. Gokhale, Professor, Department of Mechanical Engineering, IIT Bombay and Immediate Former President, IIM

3:36 pm: Dr. R. Balamuralikrishnan, Scientist G, DMRL, will talk about the IIM Platinum Jubilee Lecture Series

3:41 pm: Introducing the speaker Prof. Cecilia Poletti, TU Graz, Austria by Emcee

3:42 pm: Lecture by Prof. Cecilia Poletti, TU Graz, Austria

4:40 pm: Question & Answer session

4:45 pm: Vote of thanks by Dr. Joysurya Basu, Vice Chairman, IIM Varanasi Chapter



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