

# Fundamentals and Applications of Sheet Metal Forming

Four-day Course | Online



This EWI professional course provides an overview of sheet metal forming practices, material formability, lubrication, equipment, tooling, and various applications of sheet metal forming.

The four-day, online course is designed for designers, engineers, and managers who have roles and responsibilities in material formability/qualification, tooling design/maintenance, stamping quality check/process control, and purchasing of stamping/equipment/tooling. Attendees who complete the course can receive 12 Professional Development Hour (PDH) credits.

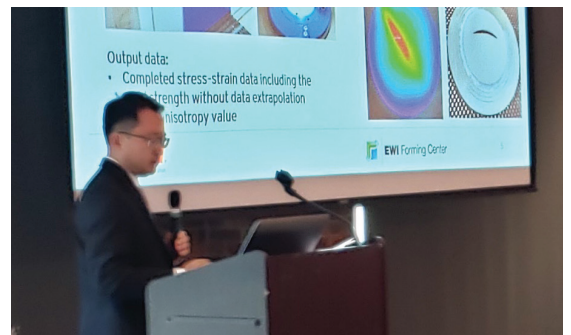


## Fundamentals of Sheet Metal Forming

<b>Day 1:</b>	<ul style="list-style-type: none"> <li>- Sheet Metal Forming – Introduction</li> <li>- Formability and Testing Methods</li> <li>- Friction and Lubrication</li> <li>- Tool Wear, Materials, Coatings and Treatments</li> </ul>
<b>Day 2:</b>	<ul style="list-style-type: none"> <li>- Press Equipment – Mechanical, Hydraulic, and Servomotor Presses</li> <li>- Forming Dies, Cushion Systems, and Sensors</li> <li>- Quality Issues of Stampings – Springback, Wrinkle, and Fracture</li> <li>- Modeling and Simulation for Forming Process</li> <li>- Formability Testing Demo with videos</li> </ul>

## Applications of Sheet Metal Forming

<b>Day 3:</b>	<ul style="list-style-type: none"> <li>- Blanking and Trimming</li> <li>- Bending, Flanging, and Hemming</li> <li>- Drawing Round and Rectangular Parts</li> <li>- Forming of Advanced High Strength Steels</li> </ul>
<b>Day 4:</b>	<ul style="list-style-type: none"> <li>- Hot Stamping</li> <li>- Warm and Hot Forming of Aluminum Alloys</li> <li>- Hydroforming of Sheet/Tube</li> <li>- Incremental Sheet Forming – Spinning, Shear Forming and Flow Forming</li> <li>- Applications of Industry 4.0 for Metal</li> </ul>



**Course Leader:** *Hyunok Kim is Director of the EWI Forming Center. His technical expertise includes cold/hot forming technology, tribology in metal forming processes, and forming test / formability analysis / process simulations. He is an Ohio-certified Professional Engineer (PE) and also teaches at The OSU College of Engineering. Hyunok received his M.S. at University of Michigan, and Ph.D. at The Ohio State University in metal forming and manufacturing areas. At EWI, he consults with metal forming companies, material suppliers, and OEMs in the automotive, aerospace, heavy manufacturing, and shipbuilding sectors. He has authored more than 60 technical papers and books on topics related to advanced manufacturing and metal forming.*

For more information, visit [ewi.org/events](http://ewi.org/events) or call **614.688.5152**.