

OTHO MATTHEW OTTE

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OVERVIEW

Dedicated class taught Christian Scientist and engineering professional with teaching experience at the university and college level. Demonstrated experience in the development of new relationships, technology, processes and student advising. Proven ability to lead and work with cross-functional teams. A qualified Facilitator for Lean Continuous Improvement and Lean for Higher Education has provided valuable insights leading to efficiency improvements. The subject matter expert in Metallurgy, possesses expert level knowledge of product engineering, alloys, production mfg., melt quality and casting defect formation.

EDUCATION BACKGROUND

Christian Science Primary Class Instruction	2015
The University of Queensland <i>Brisbane, Australia</i> Doctor of Philosophy, Mining, Minerals and Materials Engineering.	2001
Michigan Technological University <i>Houghton, Michigan</i> Bachelor of Science, Metallurgical and Materials Engineering	1996

FUNCTIONAL QUALIFICATIONS

Teaching and Advising

- Taught MTU lab sessions for MSE 4310, MEEM 3600, MET 3500, MET 1540
- Chapter Advisor to students of Phi Kappa Tau fraternity, Gamma Alpha chapter (2017-Present)

Relationship Development

- Establish and develop university relationships for student projects and talent pipeline to Eaton
- Engaged with corporate and industrial sponsors, supporting relationships, collaboration and donations

Continuous Improvement

- Lead Continuous Improvement efforts for problem suppliers & castings
- Certified Lean Facilitator for support of MTU Continuous Improvement in Higher Education

PROFESSIONAL EXPERIENCE

Eaton Corporation Plc 09/2013-2020
Michigan

Specialist Engineer – Castings & Enclosures

- Engineering expert for commodity impacting \$3B in sales, \$500M in spending
- Development of design guidelines, technical specifications & requirements
- Lead implementation of 3D-printing/Additive Manufacturing method for new designs
- AIAG Council member and co-author for CQI-27 Special Process Audit – Castings
- Represent Eaton participation within LIFT (ALMMII) consortium academic & industry research

- Awarded by company for two Outstanding Technology Achievements

Michigan Technological University

05/2017-05/2018

Houghton, MI

Foundry & Deformation Processing Laboratory Manager

- Managed daily operations and budget of high profile university research and teaching laboratories
- Increased lab revenue, stabilized finances and increased capital investments
- Performed lab work and assisted in graduate research projects
- Developed safety course content and safety program and delivered instruction to students

Musashi Auto Parts – Michigan Inc.

11/2011-09/2013

Battle Creek, MI

Metallurgical Engineer

- Provided engineering support to production induction hardening & MnP coating process lines
- Specified & developed production process recipes, control plans, work standards & operator instructions
- Determined disposition of parts, resolved quality issues, communicated as technical expert to customer

H.B. Carbide Company

03/2011-11/2011

Lewiston, MI

Metallurgist

- Directed metallurgical lab and quality control activities for cemented tungsten carbide tool production

Suzuki Garphyttan

05/2010-03/2011

South Bend, IN

Process Engineer – Oil Tempered Valve Spring Wire Production

- Responsible for process engineering for wire production: shaving, tempering, ZnP coating, drawing
- Achieved two company quality awards for process improvements

Navistar – International Truck & Engine

2005-2008

Chicago, IL

Project Engineer: Design, Validation, Release – Diesel Engine Structural Castings

- Project leader for design & validation of Al-Si front cover casting semi-permanent mold
- Design team leader for compacted-graphite-iron (CGI), green diesel engine block – 15% wt. savings
- Rescued failing project through leadership, use of soft skills & management of supplier

Hydro Aluminium Deutschland (nee VAW AG)

2000-2003

Bonn, Germany

Metallurgical Engineer – Alloy Development and Casting Technology

- Conducted benchmark testing & research on production engine block & cylinder-head castings
- Developed knowledge database of casting properties for casting process & alloy selection
- Invented eco-friendly, air-quenchable Al-Si alloy with good properties & reduced residual stress
- Developed test apparatus and assisted development of new low-pressure foundry technology

AWARDS AND PUBLICATIONS

Best Paper Award – Aluminum Division, “Alloy and casting process optimization for engine block application,” AFS Casting Congress 2001

Outstanding Technology Achievement, Eaton Corporation, PLC– Additive Manufacturing Rapid Prototyping

Outstanding Technology Achievement, Eaton Corporation PLC– Design & Development of Castings

Foundry Education Foundation Bill Grimes Scholar, ASM International Scholar

“CQI-27 Special Process Audit – Castings,” AIAG Publications, 2015.

“Influence of iron and manganese on porosity formation in Al-Si cast alloys,” Casting Plant and Technology International, vol. 2, pp. 4-17, 2007.

“Der Einfluss von Eisen und Mangan auf die Porositätsbildung in Al-Si-Gusslegierungen,” Giesserei, vol. 94 (2), pp. 20-29, 2007.

“The influence of strontium on porosity formation in Al-Si alloys,” Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, vol. 35 (11), pp. 3531-3541, 2004.

“Sr-modification and casting design effects on porosity in Al-Si alloys,” Proceedings of the 1st International Light Metal Technology Conference 2003.

“Alloy and casting process optimization for engine block application,” AFS Transactions, vol. 109, pp. 1-9, 2001.

“Optimization of an AlSi casting alloy and application-oriented development of the pouring technique for the production of high-loaded engine blocks,” Giesserei, vol. 88 (11), 2001.

“The influence of certain elements on porosity formation in an AlSi9Cu3 casting alloy,” Giesserei Forschung, vol. 53 (1), pp. 1-14, 2001.

“Porosity formation in AlSi9Cu3 alloy castings: The influence of iron, strontium, sodium, antimony and bismuth,” The University of Queensland, Brisbane, Queensland (Australia), 2000.

“Aluminium alloy castability,” Materials Australia, vol. 31 (5), pp. 16-18, 1999.

“Controlling porosity-related casting rejects: Understanding the role of iron in Al-Si alloys,” AFS Transactions, vol. 107, pp. 471-478, 1999.

“Investigation of porosity formation in iron-containing AlSi9Cu3 castings,” Proceedings of the Institute of Materials Engineering Australia Materials '98 Conference.