Afshin Heidari Monfared

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Education

HackYourFuture — 2018 — 2019
Fullstack Web-Development

PhD — 2007 — 2012
Belarusian National Technical University
Field of Study : Welding metallurgy

Master Degree — 2002 — 2004
Iran University Science and Technology
Field of Study : Extractive metallurgy

Bachelor Degree — 1993 — 1997
Islamic Azad University Karaj
Field of Study :Casting metallurgy

Skills

- Build a simple web application using React, Node.js and MySQL.
- Simulation of metallurgical processes with adequate software.
- Development of Navier-Stokes-code for fluid flow simulation.
- Development of Phase field-code for solidification simulation.
- Independent Problem Solving.

Employment

AMA Industrial Company (Iran) July 23, 2009 — April 2016

Senior of Research and Development and Quality Control

Negar Andish Consulting Engineer(Iran) July 3, 2008 — July 4, 2009

Engineer of Process of High Carbon Ferro-chrome

Software Projects

1. Implement role based access control in node.js.
2. Numerical modeling of welded joints using SYSWELD for prediction of deformation.
3. Application of Thermo-Calc & DICTRA interface (TQ) for calculation of phase diagrams with use of Fortran source codes.
4. Numerical simulation of tension and Charpy impact test with use of LS DYNA software.
5. Development of computer program for calculation of chemical slag compositions.
6. Development of computer programs for calculation of charge composition in production of Ferrochromium and Ferrosilicon.
7. Development a Fortran source code for thickness calculation of carbon refractory in the bottom side of electrical arc furnace.
8. Development a VB source code for optimum operation of the furnace with attention of electrical energy and charge composition.
9. Development a Fortran source code for simulation of low carbon steel solidification with use of phase field model.

Interests

- Creating website using React and Node.Js
- Independent jobs for example mechanical or technical fields, like math or computer programming.
- Simulation of metallurgical processes with adequate software.

Publication

1. Numerical and experimental investigations on welding residual stress in one-pass butt-welded low carbon steel CT3 / A. Heidari Monfared, F.I. Panteleenko //Международный научный симпозиум «Перспективные материалы и технологии». 25-26 мая 2009. – Витебск, Беларусь. – С. 135.
2. Numerical simulation of welding distortion in thin plates / A. Heidari Monfared, F.I.Panteleenko // Сборник материаловII, Международной научно-практической конференции «Инженерия поверхностного слоя деталей машин». Минск, БНТУ. – 2010. – С.162-163.
3.Temperature, stress in CT3 steel plate during air-arc and welding process / F.I. Panteleenko, A. Heidari Monfared // Journal of engineering physics and thermophysics,2010,Volume 83,No. 3.P.593-597.
4. Математическое моделирование сварочных деформаций в тонких пластинах / А. Хейдари Монфаред, Ф.И. Пантелеенко, А.Ф. Пантелеенко // Вестник БНТУ,2011, № 5. – С.18-24.
5. Снижение поверхностных деформаций путем термической обработки в процессе стыковой сварки / А. Хейдари Монфаред, Ф.И. Пантелеенко, А.Ф. Пантелеенко // Вестник ПГУ – Промышленность. Прикладные науки. –2011. – № 3. – С.19-26.
6. Decreasing of distortion with use of heat treatment in the butt welding process ./ A. Heidari Monfared, F.I. Panteleenko, A.F. Panteleenko // Vestnik PGU – Industry. Applied Science. –2011. - № 3. – P.19–26.
7. Numerical simulation of welding distortion in thin plates / A. Heidari Monfared // Journal of Engineering Physics and Thermophysics. – 2012, V. 85, No. 1. – P. 174-180.
8. Численный анализ различных параметров для минимизации искривления при сварке тонких пластин / А. Хейдари Монфаред, Ф.И. Пантелеенко // 2-я Международная научно-практическая конференция «Инновации в машиностроении», Сборник трудов, 6-8 октября 2011. – Россия, Кемерово. – С.296–301.