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Advanced Search View

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Anywhere ▾ Enter search term

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Publication Date

All dates

Last: ▾

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Access Type

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Abstract ▾ society

Anywhere ▾ Enter search term

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Two red circles highlight specific navigation buttons:

- A red circle highlights the button "Browse Journals By Discipline". Below this button are four sub-buttons: "Health Sciences", "Social Sciences & Humanities", "Materials Sciences & Engineering", and "Life & Biomedical Sciences".
- A red circle highlights the button "Browse A-Z". Below this button is a sub-button labeled "All SAGE Journals".

The background of the banner shows a wooden desk with a red book titled "mobile communication", a pair of glasses, a tablet displaying a website, a coffee cup, and a plate of food.

Browse Titles

Browse

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- Geriatrics
- Infectious Diseases
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- Neurology
- Nursing
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The screenshot shows the journal's homepage with a dark header. The header text reads "Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy". To the right of the header, there is a logo for the Institution of Mechanical Engineers and an impact factor of 0.689. Below the header is a navigation menu with links for Home, Browse, Submit Paper, About, and Subscribe. A search bar is located on the right side of the navigation menu. The main content area is divided into two columns. The left column is titled "About this journal" and contains a paragraph describing the journal's focus on peer-reviewed papers in energy conversion systems. Below the text is a "More" button. The right column features a cover image of the journal and three buttons: "All Issues", "Current Issue", and "OnlineFirst". Below these columns is a "Most Read" and "Most Cited" section. The "Most Read" section is active and displays three articles: "A review of wave energy converter technology" (Aug 2016), "Wind energy: UK experiences and offshore operational challenges" (Aug 2015), and "A review of expanders for power generation in small-scale organic Rankine cycle systems: Performance and operational aspects" (Jul 2016). A "View More" button is located at the bottom of this section.

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Guozhan Li, JIanyang Yu, Fu Chen, Huaping Liu, Yanping Song and Linxi Li



A study on air-cooling waste heat recovery from molten slag of slag-tap boilers

Lei Deng, Chunli Tang, Xiaowen Tan, Ke Sun, Song Wu and Defu Che

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Search Options

The screenshot displays the top section of the journal's website. At the top left, the journal title "Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy" is shown in white text on a black background. To its right is the "Institution of MECHANICAL ENGINEERS" logo. Further right, the "0.689 Impact Factor" is displayed with a link to "more »". Below the title bar is a navigation menu with links for "Home", "Browse", "Submit Paper", "About", and "Subscribe". A search bar labeled "Search this Journal" with a magnifying glass icon is positioned to the right of the navigation menu. A red and blue double-headed arrow points from the search bar towards the "About this journal" section. The "About this journal" section contains a paragraph describing the journal's focus on peer-reviewed papers in energy conversion systems and its membership in COPE. Below the text is a mouse cursor and a "More" button. To the right of the "About" section is a vertical menu with three buttons: "All Issues" (red), "Current Issue" (purple), and "OnlineFirst" (purple). Below this menu is a small red dot.

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Search Results

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The capability of energy storage systems to damp power system oscillations

W Du¹, H F Wang², L Xiao³, R Dunn⁴

Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, vol. 223, 7: pp. 759-772. , First Published June 2, 2009.

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An Assessment of Primary System Stresses on the Creep Behaviour of High Temperature Steam Piping Systems

G D T Carmichael, BSc, PhD, CEng, MIMechE¹

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ARTICLE TYPE

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Review Article 187
Other 85
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Editorial 28

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ARTICLE TYPE

Research Article	1392
Review Article	187
Other	85
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Original Articles



Thermal error compensation based on genetic algorithm and artificial neural network of the shaft in the high-speed spindle system

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Contents

Review Article

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Table of Contents View

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Higher tool wear and inferior surface quality of the specimens during machining restrict metal matrix composites' application in many areas in spite of their excellent properties. The researches in this field are not well organized, and knowledge is not properly linked to give a complete overview. Thus, it is hard to implement it in practical fields. To address this issue, this article reviews tool wear and surface generation and latest developments in machining of metal matrix composites. This will provide an insight and scientific overview in this field which will facilitate the implementation of the obtained knowledge in the practical fields. It was noted that the hard reinforcements initially start abrasive wear on the cutting tool. The abrasion exposes new cutting tool surface, which initiates adhesion of



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Contents

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Abstract

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improve the jig borer's machining accuracy effectively. The results of thermal error compensation showed that the axial accuracy was improved by 85% after error compensation, and the axial maximum error decreased from 39 to 3.6 μm . Moreover, the X/Y-direction accuracy can reach up to 82% and 85%, respectively, which demonstrated the effectiveness of the proposed methodology of measuring, modeling and compensating.

Keywords


High-speed spindle, thermal error compensation, grey cluster grouping, back propagation neural network, genetic algorithm, thermal tilt angles


Introduction


High-speed and high-precision machining is an important development direction of modern manufacturing industry, and the application of high-speed spindle systems is crucial for the implementation of high-speed and high-precision machining. However, in order to improve the transmission performance, the built-in motor and high-speed bearings take the place of gearbox box, belt drive and so on, introducing a large amount of heat into high-speed spindle systems. In addition, the coupling of heat resource's location and intensity, the heat dissipation, the spindle structure and the material properties also leads to complex thermal characteristic of high-speed spindle systems. Thermal errors caused by the uneven distribution of the temperature field are the most significant factors influencing the machining accuracy of computer numerical control (CNC)


 Full text 


- Abstract
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- Thermal characteristic experiments
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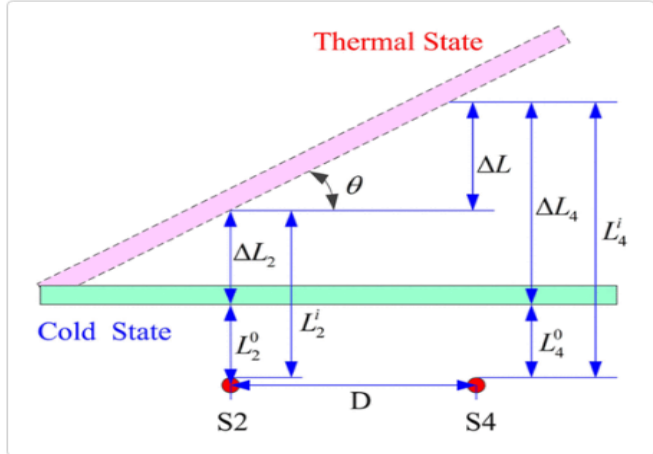
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Thermal error compensation based on genetic algorithm and artificial neural network of the shaft in the high-speed spindle system

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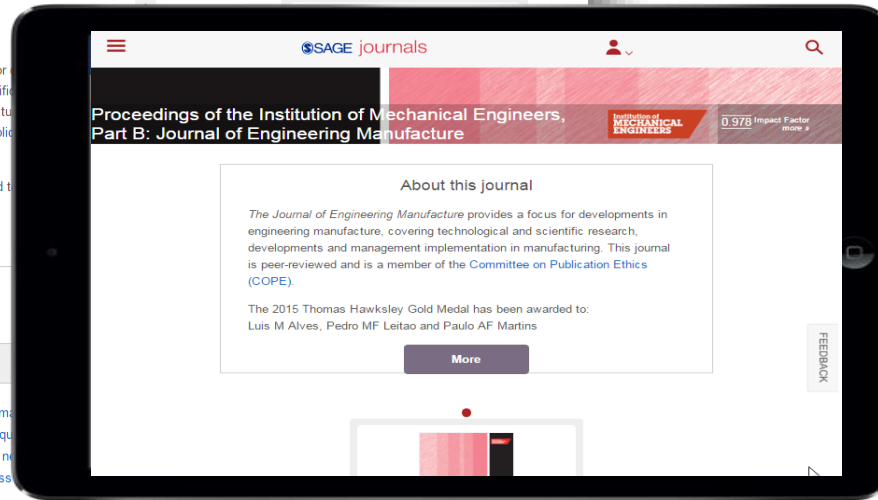
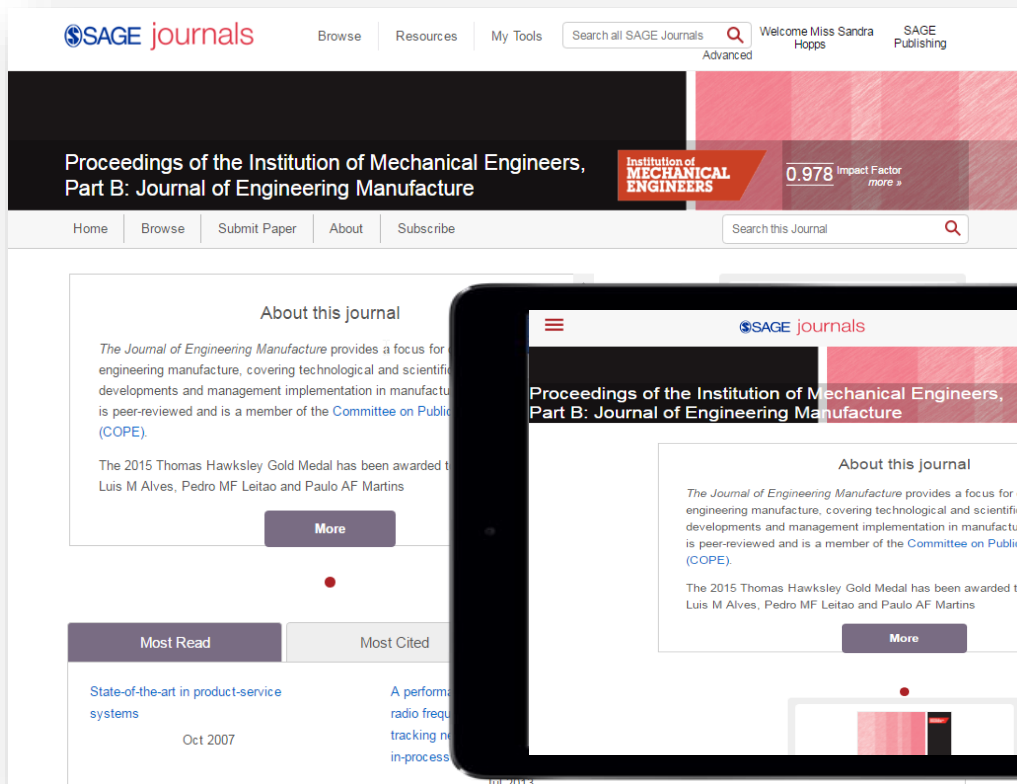
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