2023 International Conference on Fuzzy Theory and Its Applications (iFUZZY 2023)

Penghu, Taiwan 26-29 October 2023



IEEE Catalog Number: CFP2322T-POD ISBN:

979-8-3503-0580-7

Copyright \odot 2023 by the Institute of Electrical and Electronics Engineers, Inc. All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP2322T-POD

 ISBN (Print-On-Demand):
 979-8-3503-0580-7

 ISBN (Online):
 979-8-3503-0579-1

ISSN: 2377-5823

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA

Phone: (845) 758-0400 Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



TABLE OF CONTENTS

ATT-UNet: Pixel-wise Staircase Attention for Weed and Crop Detection	1
Observer-Based Decentralized Fuzzy Control for Dual Manipulator Coordination Systems	6
A Lyapunov-Based Design of Lateral Dynamics Control for a Smart High-Efficiency Flight Vehicle Mei Yamamoto, Yutoku Takahashi, Kazuo Tanaka	12
Joystick-Based Motion Control for 6-Axis Low Cost Robot Arm	18
Predict the Transformed Spatial Distance for a Pair of Image Patches Using Densely Connected Convolutional Networks	22
Controller with the PID Parameters Optimization by PSO for a 6-DOF Robotic Arm	28
The Comparison of EEG Features in Specific Mandarin Words' Speech	34
A 2-Step Deep Learning Approach to Splenic Injury Detection	38
Design of the Self-Optimal Tuning Fuzzy Inference System for Transformer Network-based Traveling Salesman Problem in Tidying Up Objects	43
Unveiling Multivariate EEG Features: A Novel Approach to Enhancing ADHD Diagnosis Through Visual and Auditory Attention Tests	49
Fuzzy ASC-GAN: A Fuzzy C-means Audio Similarity CycleGAN on Articulation Disorder Voice Conversion	54
Skill Set Development for Autonomous Vehicle Repairing Based on the Fuzzy MOP Based Competence Set Expansions	60
PRV-Based Stress Analysis on Display Color Temperatur in VR Environments	66

Author Index