

Numa parceria entre a SPR e a revista científica internacional Industrial Robot – The international journal of robotics research and application, o Editorial Board desta revista atribuiu prémios aos melhores artigos submetidos e apresentados na conferência ICARSC'2020 e que se enquadram na área de publicação desta revista.

Fica aqui a lista de premiados e a justificação do Dr. Clive Loughlin, Editor da revista, para a atribuição de cada um dos prémios:

“I was very pleased and impressed to see such a high standard of contributions for the conference. This made selection of a winner and highly commended awards a challenging pleasure.

This year I have selected three papers to receive our Highly Commended Award and two that jointly receive our Winning Paper Award. We welcome contributions from all authors at all times, but these authors are particularly encouraged to submit updated and/or extended versions of their papers for consideration by the journal.

In numerical order the Highly Commended awards go to:

Assist-as-needed Impedance Control Strategy for a Wearable Ankle Orthosis

Autores: João M. Lopes, Cristiana Pinheiro, Joana Figueiredo, Luís P. Reis and Cristina P. Santos

This paper uses adaptive impedance control to vary the human-robot interaction stiffness and assistance for ankle and gait rehabilitation. I particularly like the practicality of the approach and its considered use of assistance and resistance.

The second Highly Commended Award goes to:

Towards a Cooperative Robotic Platooning Testbed

Autores: Enio Vasconcelos Filho, Nuno Guedes, Bruno Vieira, Miguel Mestre, Ricardo Severino, Bruno Gonçalves, Anis Koubaa and Eduardo Tovar

Although the use of simulation is very powerful for allowing the testing of basic ideas it is only when those idea can be tested in the real-world that they actually become useful. The mobile robot testbed designed and validated in this paper provides a very useful and affordable half-way step for projects wanting to transition from simulation to a real application.

The third and final Highly Commended Award goes to:

2D Visual Servoing meets Rapidly-exploring Random Trees for collision avoidance

Autores: Miguel Nascimento, Pedro Vicente, and Alexandre Bernardino

It is essential that robots can accommodate the variations and uncertainties of the real-world. This work uses image-based 3D visual servoing to correct and refine open-loop trajectories to empower the robot to grasp objects successfully.

This year we have two Winning papers and these are (in numerical order):

The first winning award goes to:

Enhanced Performance Real-Time Industrial Robot Programming by Demonstration using Stereoscopic Vision and an IMU sensor

Autores: Vítor H. Pinto, António Amorim, Luís Rocha and António P. Moreira

Many industrial tasks such as spray painting and polishing, rely of the skill of a human operator to achieve the required quality and finish. These skills can take years to acquire. If a robot is to replicate the performance it needs to be taught by the skilled operator who is unlikely to have advanced robot programming knowledge. The programming-by-demonstration techniques demonstrated in this paper provide a highly practical solution to this problem using 6D Mimic sensor with an IMU sensor.

The second winning award goes to:

GEOMOVE: Detached AGVs for Cooperative Transportation of Large and Heavy Loads in the Aeronautic Industry

Autores: Carlos Rizzo, Angel Lagrãña and Daniel Serrano

As automation equipment gets larger it also becomes more specialized. If instead it is possible to have multiple smaller pieces of equipment working together collaboratively, to perform the same task, then they can be more versatile and capable of being employed in a wider variety of applications. This paper links industrial AGVs to perform collaborative tasks in a closely coordinated manner so they can undertake tasks beyond the capabilities of a single AGV working on its own.

These two papers present highly practical work that addresses real industrial needs and for this reason they both receive our Best Paper Award.”

De referir que a escolha dos trabalhos vencedores ficou a cargo do Editorial Board da revista

Industrial Robot.

A SPR felicita os autores dos vários trabalhos premiados pela excelência do trabalho desenvolvido.

