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Contract

2884/511/JS/AMRC/20 - Real time monitoring and control for automation

UNIVERSITY OF SHEFFIELD

F03: Contract award notice
Notice identifier: 2021/S 000-014002
Procurement identifier (OCID): ocds-h6vhtk-02a1e7
Published 21 June 2021, 11:10am

Section I: Contracting authority

I.1) Name and addresses

UNIVERSITY OF SHEFFIELD

Western Bank

SHEFFIELD

S102TN

Contact

Jamie Shaw

Email

jamie.shaw@sheffield.ac.uk

Telephone

+44 1142221516

Country

United Kingdom

NUTS code

UKE32 - Sheffield

Internet address(es)

Main address

www.sheffield.ac.uk

I.4) Type of the contracting authority

Body governed by public law

I.5) Main activity

Education

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

2884/511/JS/AMRC/20 - Real time monitoring and control for automation

II.1.2) Main CPV code

- 42997300 - Industrial robots

II.1.3) Type of contract

Supplies

II.1.4) Short description

2884/511/JS/AMRC/20 - Real Time Monitoring and Control for Automation

The University of Sheffield wishes to invite tenders for a 'Real Time Monitoring and Control for Automation' system on behalf of the Advanced Manufacturing Research Centre at Catcliffe, South Yorkshire.

Scope of Requirement

AMRC Integrated Manufacturing Group have a requirement for capability to measure the accuracy of multiple targets in six degrees of freedom. We require a system to improve robot

path accuracy by measure and correct methodology, stream data such as robot positions to

an external system for Digital twin activities, and a method to visualise robot path accuracy by comparison of programmed paths versus actual to continue to build upon previous work

in improving robotic accuracy. The system must be expandable to increase/add additional work area and be moveable

between areas and robotic systems. This would mean that the proposed system must not be a permanent fixture / limited in use to the installed cell or to the connected robotic system.

The system is to be initially installed into a high accuracy robotic manufacturing test cell workspace of volume 6x6x3m (we currently do not have a CAD illustration of the space cell will occupy). The intended use is to track the robotic end-effector, relative to a work object (a designated feature within the workspace). The system should be able to improve

both the static point accuracy (move-measure-correct) as well as dynamic path accuracy at a rate of several times per second and ensure that the path followed by the robot is as close to the programmed position as reasonably possible. The system should also be able to output telemetry data on actual vs programmed path for analysis.

The system will not be a permanent feature of accurate robotics work area and it should be able to be moved to other robotic cells for use. E.g. another use case would be that the system can be expanded (with more equipment such as additional cameras / sensors) to cover a cell volume of 10 x 10 x 3m housing a robotic serial arm on a linear conveyance track.

The data captured from the tracking system will used to update the robot path to achieve higher accuracy.

Data captured from the tracking system can be sent to update a digital twin at AMRC.

Software provided can compare a planned robot path with the actual robot path to visualise accuracy.

The addition of more sensors/cameras/trackers can be used to expand the work area to cover a wider range of the workshop.

Tender Process and Documentation:

This procurement is an open procedure conducted in accordance with the Public Contracts Regulations 2015

The ITT can be downloaded by registering and expressing your interest on the University`s etendering system https://in-tendhost.co.uk/Sheffield

If you have any questions or comments in relation to this tender they must be submitted via the In-tend System, this can be accessed at https://in-tendhost.co.uk/Sheffield

Completed tenders must be returned through the same e-tendering system.

Closing date for receipt of tenders: Tuesday 4th May 2021 at 12 noon (UK time).

II.1.6) Information about lots

This contract is divided into lots: No

II.1.7) Total value of the procurement (excluding VAT)

Value excluding VAT: £199,999

II.2) Description

II.2.2) Additional CPV code(s)

- 48921000 - Automation system

II.2.3) Place of performance

NUTS codes

- UKE32 - Sheffield

II.2.4) Description of the procurement

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II.2.5) Award criteria

Price

II.2.11) Information about options

Options: No

Section IV. Procedure

IV.1) Description

IV.1.1) Type of procedure

Open procedure

IV.1.8) Information about the Government Procurement Agreement (GPA)

The procurement is covered by the Government Procurement Agreement: Yes

IV.2) Administrative information

IV.2.1) Previous publication concerning this procedure

Notice number: 2021/S 000-006774

Section V. Award of contract

A contract/lot is awarded: Yes

V.2) Award of contract

V.2.1) Date of conclusion of the contract

9 June 2021

V.2.2) Information about tenders

Number of tenders received: 2

The contract has been awarded to a group of economic operators: No

V.2.3) Name and address of the contractor

Insphere Ltd

Bristol

Country

United Kingdom

NUTS code

- UKK11 - Bristol, City of

The contractor is an SME

Yes

V.2.4) Information on value of contract/lot (excluding VAT)

Total value of the contract/lot: £199,000

Section VI. Complementary information

VI.4) Procedures for review

VI.4.1) Review body

High Court of England and Wales

London

Country

United Kingdom