UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES
Alubijid | Balubal | Cagayan de Oro | Claveria | Jasaan | Oroquieta | Panaon | Villanueva

OFFICE OF THE BIDS AND AWARDS COMMITTEE IV

PURCHASE ORDER

PRN: USTP-GSPB-11-2025-3623-24402
End-User Rep. : Dr. Richard Jayson Varela
Location of Project: USTP-CDO Campus

Supplier	: **CHALLENGE SYSTEMS, INC.**	P.O. CBNo.	: 25-12-0030
Address	: Unit 3 Second Floor TC Plaza No. 40, Quezon Avenue, Dona Josefa, District 4, Quezon City, Metro Manila	Date	: December 19, 2025
E-mail Address	: rhowan.esteves@challenge.com.ph	Mode of Procurement: Public Bidding	
Telephone No.	: (632) 8892 – 3379 / 0917 – 329 – 0683		
TIN	: 224 – 103 – 038 – 00000		
Purpose	: Proposed Procurement of the Supply and Delivery of Fluid Flow Simulation Software for Built Environment Laboratory at USTP-CDO Campus CY 2025		

Gentlemen:

Please furnish this office the following articles subject to the terms and conditions contained herein:

Place of Delivery	: Contact Person: Mr. Teddy Wendel Q. Clavero, Inspection Officer, USTP-CDO Campus, C.M. Recto Ave., Lapasan, Cagayan de Oro City, Misamis Oriental Contact No.: 0928 – 437 – 3092	Delivery Term	:
Date of Delivery	: Fifteen (15) Calendar Days upon receipt of Notice to Proceed	Payment Term	: Full Payment after acceptance of goods.

Stock No.	Unit	Description	Qty.	Unit Cost	Amount
1	lic.	**FLUID FLOW SIMULATION SOFTWARE PERPETUAL LICENSE** ***OFFER: ANSYS ACADEMIC ASSOCIATE, CFD*** – Ansys Fluent® fluid simulation software is Ansys's flagship computational fluids dynamics (CFD) solution that combines advanced physics with nearly 50 years of simulation development expertise to help you solve CFD problems at gold-standard accuracy with rapid time to solution. – Fluent software simulates fluid flow phenomena to determine potential design changes and optimization strategies before, during and after physical prototype. – Fluent software's capabilities are developed by world-renowned CFD experts and supported by experienced engineers so you can have confidence in your simulation results as you develop higher-quality products faster, decrease time to market, reduce risk, and increase innovation. **CAPABILITIES** • GPU-BASED SOLVER: The Fluent GPU solver was built from the ground up to run natively on GPU hardware with no CPU offloading necessary. Leveraging the parallel performance capabilities of GPU cards, the Fluent GPU solver delivers much faster simulation solve times and much larger model sizes in the range of millions to billions of cells.	1	1,603,000.00	1,603,000.00
		TOTAL BROUGHT FORWARD		**P**	**1,603,000.00**

In case of failure to make the full delivery within the time specified above, a penalty of one-tenth (1/10) of one (1) percent for every day of delay shall be imposed.

Checked and verified by:

MELANIE A. JALOVER
Head, Procurement Services Section
PR No. 2025-3623-15

Very truly yours,

DR. AMBROSIO B. CULTURA II
President, USTP-System

Conforme:

Jose Roan Esteves
CHALLENGE SYSTEMS, INC.
Signature over printed name of Supplier

December 26, 2025
Date

Funds Available:

LILIBETH M. GARIANO
ACCOUNTANT III
Signature Over Printed Name of Chief Accountant/
Head of Accounting Division/Unit

BUR/ObR No. : ETL 25-12-1380
Amount : 1,603,000.00
416| 25-01-311

OFFICE OF THE BIDS AND AWARDS COMMITTEE IV

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Location of Project: USTP-CDO Campus

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E-mail Address	: rhowan.esteves@challenge.com.ph	Mode of Procurement:	Public Bidding
Telephone No.	: (632) 8892 – 3379 / 0917 – 329 – 0683		
TIN	: 224 – 103 – 038 – 00000		
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Stock No.	Unit	Description	Qty.	Unit Cost	Amount
				TOTAL CARRIED FORWARD	**1,603,000.00**
		• SINGLE AND MULTIPHASE FLOW MODELING: Access a comprehensive suite of both sigle-and multiphase flow models. For single-phase flows, Fluent software accurately simulates laminar and turbulent flows for gases and liquids in various conditions, including compressible and incompressible flows, steady-state and transient analysis, and conjugate heat transfer. For multiphase flows, Fluent software has numerous modeling approaches, including the volume of fluid (VOF) model, Eulerian model, Lagrangian particle tracking (DPM, DDPM, DEM), phase change models, and coupled multiphase interactions. • TURBULENCE MODELING: Model a wide range of turbulence models, including k-epsilon and k-omega models; Reynolds-averaged Navier-Stokes (RANS) models; and scale-resolving turbulence models, including large eddy simulations (LES), detached eddy simulation (DES), scale-adaptive simulation (SAS), and more. Turbulence modeling with artificial intelligence and machine learning (AI/ML) is also now part of the Ansys Fluids AI+ package, which uses AI to calibrate GEKO coefficients against a high-fidelity LES solution to approach LES accuracy at a RANS computational cost. • REACTING FLOWS: Leverage comprehensive reacting flow modeling capabilities, including finite-rate and flamelet models for efficient simulation of gas turbines, engines, and industrial burners; species transport and finite-rate chemistry crucial for			
				TOTAL BROUGHT FORWARD	**P 1,603,000.00**

In case of failure to make the full delivery within the time specified above, a penalty of one-tenth (1/10) of one (1) percent for every day of delay shall be imposed.

Checked and verified by:

MELANIE A. JALOVER
Head, Procurement Services Section
PR No. 2025-3623-15

Very truly yours,

DR. AMBROSIO B. CULTURA II
President, USTP-System

Conforme:

Jose Roan Esteves
CHALLENGE SYSTEMS, INC.
Signature over printed name of Supplier
December 26, 2025
Date

Funds Available:

LILIBETH M. GADIANE
ACCOUNTANT - FED
Signature Over Printed Name of Chief Accountant/
Head of Accounting Division/Unit

BUR/ObR No. : ETL 25-12-1380
Amount : 1,603,000.00
416|25-01-311

OFFICE OF THE BIDS AND AWARDS COMMITTEE IV

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PRN: USTP-GSPB-11-2025-3623-24402
End-User Rep. : Dr. Richard Jayson Varela
Location of Project: USTP-CDO Campus

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Stock No.	Unit	Description	Qty.	Unit Cost	Amount
				TOTAL CARRIED FORWARD	**1,603,000.00**
		hydrogen combustion, emissions prediction and chemical vapor deposition (CVD); pollutant and soot monitoring to predict formation of NOx, SOx, CO, and particulate matter for environmental compliance; and electrochemistry for batteries and fuel cells to simulate lithium-ion battery performance, degradation, and fuel cell reactions. • SHAPE OPTIMIZATION WITH ONE-CLICK OPTIMIZATION: Shape optimization in Fluent software can be achieved using the adjoint solver. The adjoint solver helps optimize the shape of components, improve performance, and reduce simulation time via sensitivity analysis. Additional optimization can be achieved through one-click optimization via integrations with Ansys optiSLang process integration and design optimization software. Available directly within the Fluent interface, you can utilize one-click optimizer algorithms to determine the optimal set of parameters using fewer simulations. • DEVELOPER ECOSYSTEM: Developers can access PyFluent, part of the PyAnsys ecosystem that enables you to launch, interface with and control Fluent sessions within any Python environment of your choice. It can be used in conjunction with other PyAnsys libraries and external Python libraries. PyFluent enables engineers to automate, customize, and streamline CFD workflows through the flexibility of Python.			
				TOTAL BROUGHT FORWARD	**P 1,603,000.00**

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Checked and verified by:

MELANIE A. JALOVER
Head, Procurement Services Section
PR No. 2025-3623-15

Very truly yours,

DR. AMBROSIO B. CULTURA II
President, USTP-System

Conforme:

Jose Roan Esteves
CHALLENGE SYSTEMS, INC.
Signature over printed name of Supplier
December 26, 2025
Date

Funds Available:

LILIBETH M. CADIANE
Signature Over Printed Name of Chief Accountant/
Head of Accounting Division/Unit

BUR/ObR No. : ETL 25-12-1360
Amount : 1,603,000.00
416/25-01-311

UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES
Alubijid | Balubal | Cagayan de Oro | Claveria | Jasaan | Oroquieta | Panaon | Villanueva

OFFICE OF THE BIDS AND AWARDS COMMITTEE IV

PURCHASE ORDER

PRN: USTP-GSPB-11-2025-3623-24402
End-User Rep. : Dr. Richard Jayson Varela
Location of Project: USTP-CDO Campus

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Stock No.	Unit	Description	Qty.	Unit Cost	Amount
				TOTAL CARRIED FORWARD	**1,603,000.00**
		• POWERFUL AND FLEXIBLE PREPROCESSING: Fluent software provides several meshing solutions that enable task-based orkflows and behind-the-scenes automations for increased speed and efficiency with limited user intervention. Watertight meshing and fault-tolerant meshing utilize simple step-by-step workflows for ease of use. Mosaic meshing enables you to transition between varying types of mesh elements automatically for complex geometries to facilitate high-fidelity results. Polyhedral unstructured mesh adaption (PUMA) is a patented technology that automatically refines the mesh to track fine details in the flow where needed while leaving coarser mesh elsewhere for faster solve times. Additionally, rapid octree meshing is designed for large scale-models and quickly generates high-quality meshes for complex geometries using an octree-based algorithm.			
		Nothing Follows			
GRAND TOTAL: ONE MILLION SIX HUNDRED THREE THOUSAND PESOS AND 00/100 ONLY				**P**	**1,603,000.00**

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Checked and verified by:

MELANIE A. JALOVER
Head, Procurement Services Section
PR No. 2025-3623-15

Very truly yours,

DR. AMBROSIO B. CULTURA II
President, USTP-System

Conforme:

Jose Roan Esteves
CHALLENGE SYSTEMS, INC.
Signature over printed name of Supplier
December 26, 2025
Date

Funds Available:

LILIBETH M. GADIANE
ACCOUNTANT - EFD
Signature Over Printed Name of Chief Accountant/
Head of Accounting Division/Unit

BUR/ObR No. : ETL 25-12-1360
Amount : 1,603,000.00
416/25-01-311