राष्ट्रीय प्रौद्योगिकी संस्थान, उत्तराखण्ड
NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND

Ref.No.: NITUK/TEQIP-III/Procurement/2020/17/(XXXV)/2003   Date:04.02.2020

ORDER TO BE PLACED UNDER PROPRIETARY CERTIFICATE
(Package Name: NITUK/2019/CE/06/ABAQUS Package Code: TEQIP-III/2019/nitu/76)

National Institute of Technology, Uttarakhand is going to place order for following software under proprietary article basis. Objection(s) if any, in this regard are called upon at **teqipthird@nituk.ac.in** from party/organization latest by the **24th February, 2020 before 04:30 PM.**

In case of no objection received from any firm/agency on or before the above mentioned date and time, then order will be placed as under:

S. No.	Item	Party (Proprietary)	Sole Authorized Distributor in India authorized to quote/sale/supply the item on behalf of OEM to the Institute doing the procurement or the jurisdiction of area covered	Qty.	Specifications
1.	ABAQUS (05 perpetual licenses with 01 year maintenance and updates	Dassault Systemes India Private Limited, The Leela Galleria, Commercial Block, 7th Floor, No.23, Old Airport Road, Bangalore-560008	M/s EDS Technologies Pvt. Ltd. The Estate, 2nd Floor, 121 Dickenson Road, Bangalore 560042, India Email: kumar.del@edstechnologies.com Contact No.: 91-9717330222	01	enclosed

Sd/-
Coordinator (TEQIP-III)

Encl:

1. Copy of Specification
2. Copy of OEM certificate(s)

राष्ट्रीय प्रौद्योगिकी संस्थान, उत्तराखण्ड
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Specifications

S. No.	Item Name	Specifications
1.	ABAQUS (05 perpetual license with 01 year maintenance and updates	05 perpetual license with 01 year maintenance and updates 1. ANALYSIS TYPES Nonlinear dynamic stress/ displacement • Acoustics • Adiabatic stress • Coupled Eulerian Lagrangian • Coupled field - Thermo-mechanical - Shock and acoustic- structural **• Fatigue loading, FRP steel concrete analysis** 2. ANALYSIS AND MODELING TECHNIQUES Automated mass scaling • Non-structural mass • Adaptive remeshing • Steady-state detection • Sub modelling • Parameterization and parametric studies • Co -simulation • Meshed beam cross-sections • Annealing • Automatic perturbation of geometry • Local degrees of freedom • Reinforcements • Embedded elements • Display bodies • User subroutines • Coupled EulerianLagrangian automated mesh refinement 3. PARALLEL EXECUTION • Available on both shared memory and distributed memory parallel (cluster) systems • User Controllable Domain Decomposition 4. Elastic Mechanical Properties Linear elasticity • Orthotropic and anisotropic linear elasticity • Hype elasticity (including permanent set) • Anisotropic hyper elasticity • Elastomeric foam • Low-density foam 5. **Inelastic Mechanical Properties** Metal plasticity - Isotropic and anisotropic yield - Isotropic and kinematic hardening - Rate-dependent yield - Porous metal plasticity - Annealing or melting - Johnson-Cook plasticity - Cast Iron • Progressive damage and failure - Ductile - Shear - Forming limit diagram (FLD) - Forming limit stress diagram (FLSD) - Müschenborn-Sonne forming limit diagram (MSFLD) - Marciniak-Kuczynski (M-K) criteria - *Hashin unidirectional composite* • **Extended Drucker-Prager plasticity** • Modified Drucker-Prager/ Cap plasticity • Cam-Clay plasticity • Mohr-Coulomb plasticity • Crushable foam plasticity • Concrete 6. Continuum • Stress analysis - 2-D (plane stress and plane strain) - 3-D - Axisymmetric - Infinite • Acoustic - 2-D - 3-D - Axisymmetric - Infinite • Coupled temperature displacement - 2-D (plane stress and plane strain) - 3-D – Axisymmetric 7. Structural • Stress analysis - Membrane (3-D) - Truss (2-D and 3-D) - Beams (2-D and 3-D) - Shells (3-D, 3-D continuum, and axisymmetric) - Coupled temperature- displacement shells (3-D, 3-D continuum) 8. Contact Modelling • General ("automatic") contact • Surface-based contact pairs • Contact interactions - 2-D and 3-D - Deformable-deformable contact - Deformable-rigid contact - Rigid-rigid contact - Self-contact - Eroding contact - Edge-to-edge contact • Mechanical contact properties - Hard contact - Soft contact - Contact damping - Static and kinetic Coulomb friction - User-defined friction models - Breakable bonds - Cohesive behavior 9. SUPPORTED PLATFORMS • Windows/Linux

3S DASSAULT SYSTEMES

October 25, 2019

To,

Department of Civil Engineering
National Institute of Technology
Srinagar, Uttarakhand - 246174

Kind Attn.: Prof. (Dr.) Kranti Jain

Sub: Letter of Authorization

Ref.:   Your interest in procurement of proprietary DASSAULT SYSTEMES SIMULIA ABAQUS SOFTWARE

Dear Sir,

With respect to the referenced interest that you have shown in the procurement of DASSAULT SYSTEMES proprietary software we are pleased to inform you that:

1. The proprietary software developed and/or owned by DASSAULT SYSTEMES globally, including India is licensed by DASSAULT SYSTEMES and authorised Value Added Reseller (VAR's) of DASSAULT SYSTEMES present across the world. These authorised VAR's manage the sale and distribution of the proprietary DASSAULT SYSTEMES software in their defined geography.

2. EDS Technologies Pvt Ltd., a corporation having its principal place of business at The Estate, 2nd Floor,121 Dickenson Road, Bangalore 560042, India, is an authorized VAR for DASSAULT SYSTEMES in INDIA and is eligible to quote, resell and support the requirements of **National Institute of Technology, Uttarakhand.** EDS Technologies Pvt Ltd would resell the Simulia Abaqus software to **National Institute of Technology, Uttarakhand** in the capacity of a VAR. DASSAULT SYSTEMES India Private Limited has a resellers relationship with EDS Technologies Pvt Ltd, vide General VAR Agreement DS ref#03065-2007 DSKK, amended via Distributor Agreement Dated May 9, 2014 DS Ref#02263-2014DS India.

3. The above are proprietary software published by DASSAULT SYSTEMES and DASSAULT SYSTEMES owns the intellectual property rights on the proprietary software. For any further queries, please visit our website: www.3ds.com or contact us at the address mentioned below.

We encourage you to contact us in case you need any clarifications.

For DASSAULT SYSTEMES India Private Limited

Authorized Signatory

Office : Dassault Systemes India Private Limited | The Leela Galleria | Commercial Block | 7th Floor | No. 23 | Old Airport Road | Bangalore - 560 008 | Tel : +91 80 4306 7000 Fax : +91 80 4150 2353   **3DS.COM**

Regd. Office | Dassault Systemes India Private Limited | M-13, LGF | South Ext. Part-2 New Delhi - 110 049 | INDIA | Tel : +91 11 4999 3999 | Fax : +91 11 4999 3933 **3DS.COM**   Corporate ID : U72200DL2007PTC177161