

HARYANA STATE COUNCIL FOR SCIENCE, INNOVATION & TECHNOLOGY (HSCSIT)
(DIRECTORATE OF SCIENCE & TECHNOLOGY, DEPARTMENT OF HIGHER EDUCATION, HARYANA)
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Website: <https://dst.highereduhry.ac.in>

PRE-BID MEETING

Experienced and reputed agencies having sufficient past experience in similar works in India are invited to participate in the Pre-bid meeting for "***Tender for Supply, Installation, Integration, Testing and Commissioning of Full Dome Digital 2D Multi-channel Projection System, shows, dome cleaning and associated works with 3 years Comprehensive Onsite Warranty at Kalpana Chawla Memorial Planetarium at Kurukshetra***". Purpose of pre-bid meeting is to invite clarifications (if any) from the interested experienced agencies regarding the Minimum technical specifications, Scope of work, other terms & conditions related to this tender. Participating agencies are also required to submit their clarifications in written on the day of pre-bid meeting. However, HSCSIT at its option shall answer such clarifications as are felt necessary. It is discretion of HSCSIT to incorporate changes/amend the existing tender document as per changes (if any) proposed by the agency (ies) in this meeting. Draft tender document can be downloaded from the department's website i.e.: <https://dst.highereduhry.ac.in>. Interested agencies may also visit the planetarium at Kurukshetra on any working day by prior liaison with the planetarium's office. The meeting shall be held on **date: 12.08.2024** at **time: 10:00 am** at 1st Floor in the Conference Room in office of Haryana State Council For Science, Innovation & Technology (HSCSIT) at Bays 35-38, Sector-2, Panchkula, Haryana. No clarifications, amendments, suggestions shall be entertained from the agencies after publication of tender.

Secretary/EC, HSCSIT

OBJECTIVE

This is a Tender document for Supply, Installation, Integration, Testing and Commissioning of Full Dome Digital 2D Projection System for projection on existing horizontal, 12 meter diameter perforated aluminum dome screen with geometrical correction, auto image stitching and auto blending etc. for seamless projection of high resolution 2D digital full dome film shows, rendering of existing two shows namely "Oasis in Space" and "Astronaut", providing 2D shows, integration of the existing 5.1 surround sound audio system with new projection system, thorough cleaning of the existing dome aluminum perforated screen and replacement of silicon insulation sheets used for acoustic treatment & associated works at Kalpana Chawla Memorial Planetarium at Kurukshetra.

Important Information

Sr. No.	Information	Details
1	Name of Work	Supply, Installation, Integration, Testing and Commissioning of Full Dome Digital 2D Multi-channel Projection System, shows, dome cleaning and associated works with 3 years Comprehensive Onsite Warranty at Kalpana Chawla Memorial Planetarium at Kurukshetra.
2	Project duration	6 months
3	Currency	Currency in which bidders may quote the price and will receive payment is Indian National Rupee (INR) only.
4	Bid Validity	180 days from the date of publication of tender.

DEFINITIONS: In this Contract, the following terms will be interpreted as indicated:

- a) **“Purchaser”** means Supplies and Disposals Department Haryana.
- b) **“DS&D”** means Department of Supplies and Disposals, Haryana.
- c) **“HSCSI&T”** means Haryana State Council for Science, Innovation & Technology, Panchkula.
- d) **“KCMP”** means Kalpana Chawla Memorial Planetarium, Kurukshetra.
- e) **“The Contract”** means the agreement entered into between the Purchaser and the Supplier, as recorded in the contract Form signed by the Parties, including all attachments and appendices thereto and all documents incorporated by reference there-in.
- f) **“The Materials/Equipment”** means all of the equipment, machinery/hardware, software and/or other materials which the Supplier is required to supply to the Purchaser as mentioned in this tender.
- g) **“The Services”** means after sale services ancillary to the supply of the Materials/equipment, such as transportation and insurance, and any other incidental Services, such as installation, commissioning, technical assistance, maintenance, repairs, technical support, training, cleaning of dome screen, and other such obligations of the Supplier covered under the Contract.
- h) **“Bidder”** is a supplier who has registered with the purchaser for supply of Materials/equipment and has proper registration with Indian Government to carry out business.
- i) **“Supplier”** means the bidder to whom the work is awarded and responsible for supplying the materials/equipment and services under this contract.
- j) **“Day”** means a calendar day.
- k) **“Similar work(s)”** means: Supply, Installation, Integration, Testing and Commissioning of Full Dome Digital 2D multi-channel Projection System for projection on fixed dome of diameter size of 8-meters or above with geometrical correction, auto image stitching and auto blending etc. for seamless projection of high resolution 2D digital full dome film shows, Voiceover of shows in Hindi/regional language and other associated works.
- l) **CMC:** Onsite Comprehensive Annual Maintenance Contract.

1. PRE-QUALIFICATION/ELIGIBILITY CONDITIONS FOR BIDDERS:

The bidders participating in this tender shall possess the following minimum pre-qualification/eligibility criteria. Any bid failing to meet the stated criteria shall be summarily rejected and will not be considered for Technical Evaluation:

Sr. No.	Criteria	Criteria description	Valid & Self attested copies of following Documents/proofs to be uploaded in Technical bid on portal
(A)	Legal Entity	Bidder should upload copy of valid Certificate of incorporation/Business License/Registration under any Indian govt law.	Copies of such registration with government, Bidder's PAN card, GST registration certificate & Bidder's business profile.
(B)	Technical Capability	<p>Bidder should have experience in satisfactorily implementing similar Work(s) in India during last ten years ending last day of the month previous to the month in which this tender is published. Out of these Similar work(s) as mentioned above, works done in last five years (ending last day of the month previous to the month in which this tender is published) should be operational. There should be satisfactory implementation, completion, of previously done similar work(s). The after-sales maintenance services should be satisfactory, during warranty period.</p> <p>The bidder should have OEM authorization to sell, implement & service of the equipment related to similar work(s) mentioned in this tender (for Video & Audio equipment, Shows, KVM switches, extenders & Software applications etc.)</p>	<p>a) Upload list of similar works implemented in last ten (10) years ending last day of the month previous to the month in which this tender is published. Works done in last five years out of these ten years (ending last day of the month previous to the month in which this tender is published) which are operational should be highlighted/indicated clearly.</p> <p>b) Upload copies of orders of works done previously given by the customers, of similar work(s) done previously, containing component-wise cost of items/services of the systems provided like projectors, fish eye lens, computer hardware components, software applications, audio, lighting, shows and associated services. If customer work order does not have component-wise cost break-up, then bidder shall prepare component-wise/item-wise cost breakup of all the components of the systems provided, like projectors, fish eye lens, computer hardware components in detail, all software applications, audio</p>

			<p>system components, lighting, title wise shows and associated services provided along with names, designations, email id's and contact details of such customers. In case of payments of components in previous work(s) was made in foreign currency by customer directly to bidder's foreign associate, then bidder shall convert the prices given in foreign currency in such orders to Indian currency as per the currency conversion rate prevailing at the time of placement of order. If component-wise cost of the similar work(s) is not specifically mentioned in the cost breakup, the work experience against that work order will not be considered as valid.</p> <p>c) Bidders shall also upload satisfactory work completion certificates, issued by the client, of the similar work(s) completed previously [from the list of previously done work(s) uploaded].</p> <p>d) Bidders shall also upload in technical bid, certificates issued by customers regarding providing satisfactory after sales maintenance services to these customers (whose details are uploaded as per above clauses) during the warranty period, the period of services should be clearly mentioned in the certificates.</p> <p>(Bidders to submit above details with supporting documents in the online Technical bid envelope as per format appended at ANNEXURE-A).</p> <p>e) The bidders are required to upload copies of separate authorization certificates issued by OEMs of different equipment like digital projectors, computer hardware, software applications, extenders, power supplies, tab etc. in online Technical Bid in the prescribed format appended at ANNEXURE-B of this document.</p>
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(C)	Financial Turnover	Average Annual Turnover of the bidder shall not be less than 2.5 Crores for last three audited financial years (2020-21, 2021-22, & 2022-23) ending March 2023.	Upload audited balance sheets, CA certificate with CA's Registration number & Seal in Technical bid as per ANNEXURE-C .
(D)	Mandatory undertakings	<p>Bidder should give an Undertaking regarding following:</p> <p>that bidder has read, understood, fully agree and is fully capable to comply with all the terms and conditions of this tender.</p> <p>that bidder has not concealed any information related to projects of similar work(s) and the information submitted by the bidder in this tender is true and best to his/her knowledge.</p> <p>that bidder is not insolvent, in receivership, bankrupt or being wound up, not has its affairs administered by a court or a judicial officer, not has its business activities suspended and must not be the subject of legal proceedings for any of the foregoing reasons;</p> <p>that bidder not has, and his/her directors and officers not have, been convicted of any criminal offence related to their professional conduct or the making of false statements or misrepresentations as to their qualifications to enter into a procurement contract within a period of three years preceding the Commencement of the procurement process, or not have been otherwise disqualified pursuant to debarment proceedings;</p> <p>Not have a conflict of interest in the procurement in question as specified in the bidding document.</p> <p>Bidder's firm/company is currently not blacklisted by any of the State or UT and or Central Government or any of its agencies in India on any ground including but not limited to indulgence in corrupt</p>	The bidders are required to upload an undertaking in this regard in online Technical Bid in the prescribed format appended at ANNEXURE D of this document.

		practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as on date of bid submission.	
(E)	Expert Manpower	The bidder must have an expert team in service and maintenance of similar work(s) demanded in this tender. After sale service, spares, repair and support infrastructure for these similar Work(s) which includes projectors, computer hardware/software, audio, image calibration equipment, software upgrades etc. must be available with bidder. There should also be presence of OEM's service/repair centres of all the respective components of projection system and other components (of the works to be carried out by the supplier).	The bidder must upload in Technical bid list of its trained staff as per their technical skill related to installation/repair/maintenance of the equipment/material and software of the similar work(s). Bidder should enclose the CV's (with photos) of following staff who will work in this project: 1) Project Manager 2) System Integration Expert 3) Project Engineer 4) AV engineer Apart from this, bidder shall also enclose CV of the voice artists whom the bidder will hire for dubbing of shows in Hindi language, artist should have adequate experience in doing similar work(s), bidder to upload list of similar work(s) done by the artist previously with links to various audios-videos content done by the artist available on various social media platforms on the internet in technical bid .
(F)	O.E.M	Information regarding OEMs of the equipment/software	The bidder should upload in Technical bid list of OEM's service/repair centres (with addresses, contacts in India) of the components of similar works (like projectors, audio, computer systems, software, lighting, extenders, switches etc.) offered in this tender.

2. PRE-QUALIFICATION / ELIGIBILITY CONDITIONS FOR O.E.M: Proposed OEMs for items like Projectors, Computer hardware, software & other equipment/software (that bidder is offering in its bid) should not have been blacklisted by any State/Central Government Department or Central /State PSUs in last 10 years. Copy of certificate from OEM of each component for this purpose to be uploaded in **technical bid** envelope by self-attesting by the bidder.

3. INSTRUCTIONS TO BIDDERS:

3.1 **Sub-Contracting:** Back-to-Back subletting of work is not allowed.

3.2 **Site visit:**

- a) **Visit of the KCMP, Kurukshetra:** Bidders are advised to visit the existing theatre at KCMP, Kurukshetra on any working day by prior written intimation to ascertain and fully understand the nature and quantum of work before tendering, to check the workability of the existing audio system, to check the condition of the existing dome screen and other infrastructure like electrical setup, 15 KVA UPS backup etc. However, lack of knowledge of site conditions cannot be considered as an excuse for mistake/misrepresentation in the bid.
- b) **Pre-Bid Meeting & clarifications/modifications:** Once the tender is published there shall be no further pre-bid meeting, no amendments/clarifications from the agencies shall be entertained. If required, DS&D at its discretion can amend the tender document at anytime.
- c) DS&D may, at its discretion, extend the last date for submission of bids by publication of the same on the website.

3.3 **Validity of Bids:** The Bids shall remain valid for 180 days from the date of publication of tender. A bid valid for shorter period shall be rejected.

3.4 **Format and signing of bids:**

- a) Authorized person of the bidder who signs the bid, attend meetings, negotiations etc. shall obtain authorization letter from the bidder, which shall be uploaded in the **technical bid** envelope. All pages of the bid and its annexure, etc. shall be signed and stamped by the person or persons signing the bid.
- b) The Bidder should submit a Power of Attorney in the **technical bid** envelope, as per the format set forth in **ANNEXURE-E** authorizing the signatory of the Bid to commit the Bidder.

3.5 **Language of bidding:** The bid as well as all correspondence and documents relating to the bid exchanged by the bidder and DS&D shall be in English or Hindi. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English. In such case, for the purposes of interpretation of the bid, such translation shall govern.

3.6 The Bidder shall quote only one specific make and model from only one specific OEM, for each of the items demanded in the financial bid. Providing more than one option shall not be allowed.

3.7 Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have made misleading or false representation in the forms, statements/undertakings/declarations and attachments submitted as proof of the qualification requirements; and/or Record for poor performance such as abandoning the

works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.

- 3.8 Uploading unnecessary documents and/or mentioning their own terms and conditions by the bidders may lead to disqualification of bidders.
- 3.9 All the documents shall be self-attested.
- 3.10 The bidder should have the past experience of similar work(s) as a prime contractor not as a sub-contractor.
- 3.11 There shall be no dealing with the foreign agencies.
- 3.12 Successful bidder to whom the work is awarded will be solely responsible to comply with the terms and conditions of the contract.

3.13 Instructions during bid submission:

- a) The Bidder is expected to price all the items and services sought in the tender and proposed in the technical proposal. The Bid should be comprehensive and inclusive of all the services to be provided by the Bidder as per the “scope of work” and in accordance with the terms and conditions as set out in the Contract.
- b) DS&D may seek clarifications from the Bidder on the technical proposal. Any of the clarifications by the Bidder on the technical proposal should not have any commercial implications. The Financial Proposal submitted by the Bidder should be inclusive of all the items in the technical proposal and should incorporate all the clarifications provided by the Bidder on the technical proposal during the evaluation of the technical offer.
- c) Technical Proposal shall not contain any financial information.
- d) It is required that all the proposals submitted in response to this tender should be unconditional in all respects, failing which DS&D reserves the right to reject the proposal.

3.14 Bid Evaluation:

a) Evaluation of bids shall be carried out in following manner:

- i) DS&D shall open the tender submitted online and check for payment of Document Fee and Earnest Money Deposit (EMD) and then the conditions mentioned under the “Pre-Qualification/Eligibility conditions for bidders” will be checked. Each of the Pre-Qualification//Eligibility condition mentioned in tender is mandatory. In case the Bidder does not meet any one of the conditions, the bidder will be disqualified.
- ii) If the copy of work order of previous work(s) done by bidder is enclosed & contains several works, only the value of the similar work(s) shall be considered for work experience. If the value of the similar work(s) is not specifically mentioned in the cost breakup, the work experience against that work order will not be considered as valid.

- iii) The bidder should provide documentary proof to clearly substantiate each eligibility criteria, failing which the bid will be summarily rejected.
- iv) If the bidder has offered equipment/material/service better than the technical specification/requirement in this tender, the same shall be considered.
- v) In the case individual member of Consortium/JV participating in this E-TENDER, proportionate weightage (as per agreement) will be given to the individual member for the past experience of the similar work executed in consortium subject to submission of consortium agreement. The work(s) performed by the individual member of the Consortium/JV (who is participating in this tender), out of the total similar work(s) executed by the Consortium/JV as per work awarded and value of such work(s) performed by the individual member, should be defined in the agreement uploaded. In case, if agreement is ambiguous and/or doesn't clearly mentions about the work(s) performed by the individual member and value of such work(s), then experience of the individual member of the Consortium/JV shall not be considered.
- vi) Purchaser will review the technical proposals of the pre-qualified/eligible bidders to determine whether the technical proposals are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at purchaser's discretion.
- vii) Bidders shall provide detailed technical note to explain : the components offered, how bidder will comply with tender's minimum specifications, scope of work, how bidder will carry out the work, timeline to be followed, auto-correction, blending of multi-channel projection system, dome cleaning, integration of existing audio system, periodic preventive maintenance schedules of different components like projectors, computer hardware and software, sky-simulation software features, control/configuration of all the components through handheld user interface device like tab etc. in **Technical bid** as per the offer submitted.
- viii) The Bidders are required to submit all required documentation in support of the evaluation (e.g. Detailed Project citations and copy of work order Completion Certificate, client contact information for verification, and all others components etc.)
- ix) At any time during the Bid evaluation process, purchaser's committee may seek oral / written clarifications from the Bidders. The committee may seek inputs from their professional and technical experts in the evaluation process.
- x) Purchaser reserves the right to do a reference check of the past experience stated by the Bidder. Any feedback received during the reference check shall be taken into account during the technical evaluation process.
- xi) The solution proposed by the bidder should be in-line with the requirements defined under the sections "Required Minimum Technical Specifications of 2d Digital Immersive Planetarium Projection System" and "Scope of work". Factors like Quality/Brands of equipments quoted, simplicity of architecture/design of the whole system, after sales recurring maintenance costs, project timeline etc. shall be considered. Detailed proposal on Integration of Existing 5.1 audio

system and on how bidder shall implement and execute the Aluminum perforated dome cleaning from inside and upside (both surfaces), replacement of silicon acoustic insulation sheets with poly-synth material, details and specifications of the cleaning materials to be used etc. is required to be mentioned.

- xii) Purchaser reserves the right to accept or reject any or all bids without giving any reasons thereof.

b) Evaluation & Tabulation of Financial Bids:

- i) Only fixed price financial bids indicating total price for all the deliverables and services specified in this bid document will be considered.
- ii) Prices quoted in the Bid must be firm and final and shall not be subject to any modifications, on any account whatsoever.
- iv) If there is no price quoted for certain material/equipment or service, it will be considered as free service without any cost to DS&D/HSCSI&T.
- v) Financial bids of those Bidders who fulfill per-qualification/eligibility conditions and are technically suitable will only be opened. All other financial bids will not be opened. Bidder with lowest financial offer shall be selected.
- vi) It is sole discretion of the purchaser to decide the financial evaluation criteria after opening of financial bids. Purchaser may either workout the lowest bid by adding prices of all the items and services given in the financial bid format or may as per its priority and need of HSCS&T may choose specific items and/or services from the prices quoted and compare the bids for those specific items/services only for working out the lowest bid.
- vii) Purchaser also reserves the right to do the itemized comparison of the prices quoted by the bidders for individual items and services and may also divide the work order for different items and services among the bidders whose bids are lowest and/or technically suitable for that particular item or service.
- viii) After short listing the best bid, purchaser may give or may not give order for all/any of the components or reserves the right to give order for partial components as per its choice.

3.15 PRICE:

- a) The price and rates indicated shall include all incidental charges like packing, forwarding, freight, insurance, custom clearance charges, delivery, skilled/un-skilled manpower services etc. as may be applicable to this tender. The price should also include the costs of any other miscellaneous work(s) (if required) like any civil work/modification inside the dome, electrical/HVAC work, mechanical work etc. and providing training for the operation and maintenance of the system to the Planetarium staff.
- b) In the event of exemption or reduction of Custom Duties, Excise Duties, Sales Tax or any other Cess /Levy being granted by the Government in respect of the work(s), the benefit of the same shall be passed on to the DS&D.
- c) All the payments related to this contract shall be released in Indian currency to the bidder.
- d) Prices shall be quoted in figures as well as in words. If any difference in figures and words is found, lower of the two shall be taken as valid and correct.
- e) All prices quoted should be F.O.R Kalpana Chawla Memorial Planetarium (KCMP) at Kurukshetra and should be firm, inclusive of packing and forwarding, handling charges to cover the transport to site, insurance and other legally permissible duties and levies like custom duties, skilled/un-skilled manpower charges etc. wherever applicable. DS&D will not pay separate charges above the amount given in purchase order. In case after opening of the bid, bidder do not comply with this condition, then his/their bid shall be rejected and E.M.D shall be forfeited.
- f) The prices quoted in online financial bid should be in absolute value (not in percentage). Payment shall be made to the supplier through bank transfer (NEFT/RTGS) after satisfactory completion of works, delivery of services required (as given in the contract agreement), handover of complete system, successful operation & after receipt of proper bills. Taxes as applicable shall be deducted at source.
- g) It is the responsibility of the Bidder to inform himself of the correct rates of duties and taxes applicable on the materials at the time of bidding. Bidder shall also keep DS&D indemnified regarding effective rates of duties, taxes applicable on various items being quoted and if required shall also provide copies of Govt. instructions in support of the same.
- h) Any variation up or down in statutory levy or new levies introduced after signing of the contract under this tender & within the delivery schedule will be to the bidder's account.

3.16 Delivery & Time of Completion:

- a) Document related to timeline for execution of the entire work from the date of placement of order indicating therein parallel activities and critical path to establish completion of the entire work within the stipulated time schedule need to be uploaded in the online **Technical bid** envelope for approval of DS&D.
- b) Hardware/Software/other equipments: Delivery period will be reckoned from the date of issue of award. Supplier/Bidder selected for award of contract shall deliver the ordered equipments, software, shows etc. at KCMP maximum within 150 days from the date of award of the contract. The delivery period, which will be reckoned from the date of the award, will be guaranteed under penalty as in **Clause No.3.19**.
- c) After receipt of the materials/equipments like hardware, software etc. as per above clause, the supplier/bidder selected for award of contract shall complete all the works/provide required services mentioned under "Scope of Work" and complete installation, commissioning, testing, user training, integration of existing audio system, dome screen cleaning and all other associated works up to the satisfaction of the HSCSI&T and shall handover the system to HSCSI&T in compliance of this tender's terms and conditions maximum within 180 days from the date of award of contract to the supplier. In case of delay/non-compliance, penalty clause shall be applicable as per **Clause No.3.19**.
- d) Every effort should be made to complete the entire work by the successful bidder within the specified time. In case the successful bidder fails to comply with the specified time schedule as per the approved time schedule (as per above clauses) and accepted terms and conditions, and where the progress of work is not found satisfactory, and commensurate with the expected progress DS&D reserves the right to cancel the order. The decision of DS&D in this regard shall be final and binding on the successful bidder. The successful bidder cannot claim any compensation for such cancellation of contract.

3.17 **Inspection:** After receipt of the equipments, software etc. at KCMP the bidder shall provide list of the items in triplicate containing item names, specifications like brand, model, year of manufacture, accessories, manuals/guides etc. and shall give adequate time to HSCSI&T's technical committee to inspect the items in the consignment. Unpacking/Unsealing of packages shall be done in presence of said committee. Every package should be properly labeled showing full details of item. Any/all defective items pointed out to the supplier by the said committee during such inspection shall be promptly replaced with new item at the cost (including material, transportation etc. all costs) of the supplier to meet the desired quality and performance as per requirement of KCMP failing which penal action shall be taken as deemed fit by DS&D. The decision of DS&D in this regard shall be final and binding on the successful bidder.

3.18 DEFECT LIABILITY/ONSITE COMPREHENSIVE WARRANTY PERIOD:

- a) The Defect Liability/Onsite Comprehensive Warranty Period shall be **three years onsite** starting from the date of completion of satisfactory installation, commissioning, and handover of the complete system along with shows (Projectors, Computer Hardware/Software associated items/works etc.). The supplier shall provide Single Window Onsite Comprehensive Warranty support. The supplier shall be responsible for all defects of the installed equipment, manufacturing or other defects of components, maintenance and updating/upgrading of associated software, supply of all components, consumables, services etc. for a period of three years. The supplier, shall at his own cost, rectify the defects and/or replace the defective parts/equipment, up to the complete satisfaction of HSCSI&T within time defined in this document. The selected bidder will maintain the all-essential spares at their own stores and the required tools / test equipment / software so as to reduce the break-down time. This comprehensive warranty period shall also include preventive maintenance of the equipments supplied, for which the supplier shall carry out preventive maintenance by sending their technical experts to KCMP at least once in a year.
- b) All replaced parts shall remain as property of HSCSI&T, all faulty parts shall be taken back by the bidder. All the auxiliary parts including consumables, networking cables, connectors, etc. that may be required to maintain the system shall be supplied by the bidder at their own cost.
- c) By agreeing to this tender's terms and conditions the Supplier/Bidder selected for award of contract, warrants that the materials/equipment/software supplied under the Contract are new/of latest version, unused, of the most recent or current models and those they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The supplier further warrants that all Materials/equipment/software supplied under this Contract will have no defect, arising from a design and /or materials as required by the DS&D specifications or from any act of omission of the Supplier that may develop under normal use of the supplied Materials/equipment.
- d) All the equipment/material will be of the best class and will be capable of satisfactory operation in the tropics without distortion or deterioration. No welding filling or plugging of defective parts will be permitted, unless otherwise specified, they will conform to the requirements of the appropriate Indian Standards.
- e) Supplier shall also provide specific tools, tackles, consumables, spares, software applications, software/antivirus updates and their periodic implementation etc. to KCMP required for periodic basic maintenance & upkeep of the system during warranty period and beyond and upload list of such items in **technical bid** envelope.
- f) There shall periodic preventive service schedule for projection system equipments like projectors, computers, audio equipments, lighting, software in which the supplier shall arrange for the scheduled maintenance services available from the OEMs side as per which the OEM's expert engineer visit KCMP for servicing like fine tuning, alignment correction, dusting, oiling software fine tuning/updating the equipment and replacement of auxiliaries if required.
- g) The system offered should be with very high up-time commitment (99% over 364 days a year or 365 days in case of a leap year). The selected bidder shall maintain inventory of spares at his store in India for the designated up-time commitment for on-site warranty.
- h) All safety measures shall be considered while designing for safety of people and equipment. The selected bidder shall remain responsible for closely monitoring the work at site to ensure that desired quality of work is executed.

- i) Bidder/Bidders selected for award of contract shall also provide 24X7 technical support through various means like telephonic, email, remote desktop and through person regarding the maintenance of the system depending on the severity of the fault throughout the week. The bidder shall also mention their Telephonic and email support number/numbers in **technical bid**.
- j) During the warranty/CMC periods after registering of fault occurred in the system by KCMP, the Supplier shall respond immediately for fault diagnosis (through telephonic/email/remote desktop support/by sending expert person) without delay after registration of complaint. If after reporting the fault/problem to the supplier, the breakdown exceeds 48 hours in any case, the warranty period of the faulty equipment/software will be extended, the time period of extension of warranty starting from the hour when fault was reported to the supplier and shall continue till the fault is resolved and system is made functional by the supplier. In case of breakdown beyond 48 hours (starting from the 49th hour of breakdown) apart from extension of the warranty period, penalty @ Rs.1335/- per show not run shall also be imposed taking maximum 5 shows per day (excluding planetarium holidays), to compensate the financial loss to the HSCSI&T and inconvenience caused to the visitors. Penalty shall be recovered from the payments due to the supplier and/or from its security deposit/bank guaranty. The amount of penalty shall vary from time to time as per ticket rates applicable and average visitor footfall of last one year. However, all round efforts must be made to set right the system in shortest possible time. Service shall be available for at all times for 365 days in a year.
- k) The Bidder selected for award of contract shall indemnify and keep the KCMP indemnified regarding the safe operation and general maintenance/handling of the equipment from time to time.
- l) Council shall take over the digital projection system only after successful dome cleaning, installation, commissioning, testing of the whole projection system along with shows, integration of existing audio system, providing operation and maintenance manuals/product catalogues, drawings, warranty/guaranty documents, shows, additional hardware/spares, tools/tackles (if any), removing of scaffoldings, waste materials, training of KCMP staff, fault free running of whole system and shows supplied.
- m) The selected bidder will maintain the essential spares at their own stores and the required tools / test equipment / software so as to reduce the break-down time. Spare parts manufactured by Original Equipment Manufacturer (OEM) will be preferred. However, in unavoidable situations spares manufactured by equivalent manufacturers may be used with prior approval of HSCSI&T stating appropriate reason and justification.

3.19 **Penalty** : If the bidder, after accepting the Purchase Order, fails/delays to deliver dome cleaning services, existing audio integration with new system being supplied and/or fails/delays to successfully make the whole projection equipments (including shows) operational and fails/delays to provide necessary manuals/documents/catalogues/warranty related documents etc. as stipulated in this tender document, within the period specified in this document, DS&D shall, without prejudice to its other remedies under the Govt. rules, proceed to cancel the order or agree to accept a delayed delivery on the condition of payment of liquidated damages by the bidder, a sum equivalent to 1% of the total cost as indicated in the Purchase Order (which will be deemed as agreed price) for each week or part thereof of delay until actual delivery or performance is completed and such penal charges shall be limited to a maximum of 5% of the total cost. Once the maximum is reached, DS&D may proceed on its own to consider the termination/cancellation of the order. For calculation of penalty the date of receipt of material at the Planetarium is the date of delivery subject to the condition that the goods/material is received in good working condition. Materials/Equipment/software/shows which are not of acceptable quality or are not conforming to

the specification would be deemed to be not delivered. For penalty, the number of days would be rounded off to the nearest week and penalty calculated accordingly.

3.20 PATENT RIGHTS AND ROYALTIES:

- a) The bidder/supplier shall indemnify the DS&D against all third-party claims of infringement of patent, copyrights, royalties, trademarks or industrial design rights arising from use of the goods, drawing or any part thereof.
- b) The bidder/supplier will declare and guarantees that all copyrights and author's rights etc. of all third parties shall be duly purchased and obtained and the royalties paid and by this agreement these rights of third parties, unencumbered in any respect, shall be transferred to DS&D. No such right would be only for one time use specifically for this job. If, however, any dispute of claim preferred by the third parties arises, Agency shall indemnify the DS&D against any such claim whatsoever.
- c) The bidder/supplier hereby agrees that no claim whatsoever shall be made against the DS&D and/or HSCSI&T in respect of any proprietary rights on the part of any other party relating to the plans, designs, models, drawings, photographs, scripts, 2D free shows or any other such items, which they have used in the display of the work. The Agency shall indemnify the DS&D of all costs and expenses, which may have called upon to do so against such claims.

3.21 INSURANCE IN RESPECT OF DAMAGE TO PERSONS AND PROPERTY:

- a) The bidder/supplier shall be responsible for all injury to persons, animals or things, and for all structural and decorative damage to property which may arise from the operation or neglect of himself or of any nominated employees, whether such injury or damage arises from carelessness, accident or any other cause whatever in any way connected with the carrying out of his contract. This clause shall be held to include inter-alia any damage to buildings, electrical work, whether immediately adjacent or otherwise, and any damage to roads, street, footpaths, bridges or ways as well as all damages caused to the buildings and works forming the subject of this contract by inclement weather.
- b) The bidder/supplier shall indemnify DS&D and/or HSCSI&T and hold it harmless in respect of all and any expenses arising from any such injury or damage to person or property as aforesaid and also in respect of any claim made in respect of injury or damage under any Act of Government or otherwise and also in respect of any award of compensation or damages consequent upon such claim.
- c) The bidder/supplier shall reinstate all damages so as to deliver the whole of the contract work complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.
- d) The bidder/supplier shall indemnify the DS&D against all claims which may be made against the DS&D by any member of the public or other third party or any employee of the bidder/supplier or its subcontractor in respect of anything which may arise in respect of the work or in consequence thereof and shall at his own expense arrange to effect and maintain, until the completion of the

contract, a Policy of Insurance against such risks may be purchased by bidder/supplier for this contract.

- e) The DS&D shall be at liberty and is hereby empowered to deduct the cost of any damage, compensation, costs, charges and expenses arising or accruing from or in respect of any such claim or damage from any sum or sums due to or become due to the bidder/supplier.

3.22 **SUSPENSION OF WORK:**

- a) Purchaser reserves the right to suspend and reinstate execution of the whole or any part of the works without invalidating the provisions of the contract. The purchaser's administration will issue orders for suspension or reinstatement of the work to the supplier in writing. The time for completion of the works will be extended for a period equal to duration of the suspension.
- b) Any necessary and demonstrable costs incurred by the supplier as a result of such suspension of the works will be paid by the DS&D provided such costs are sustained to the satisfaction of the DS&D. The DS&D shall not be responsible for any liabilities if suspension or delay is due to some default on the part of the supplier or acts of God like floods, earthquakes etc.

3.23 **TERMINATION FOR INSOLVENCY:** DS&D may at any time terminate the contract by giving written notice to the supplier without compensation to the supplier, if it becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will occur thereafter to the DS&D.

3.24 **PAYMENT TERMS:**

- a) 60% payment of the total value of work order within 30 days after the receipt and acceptance of all equipments like projectors, computer hardware, lighting & software, consumables, manuals/drawings, spares/additional hardware etc. all in good condition as specified in the work order.
- b) Remaining 40% payment of the total value of work order within 30 days after satisfactory completion of dome screen cleaning, replacement of silicon insulation sheets with acoustic poly-synth material, successful installation, commissioning, testing, running and handover of all projection system equipments along with their accessories (like computer hardware & Software, including additional computer hardware & software, successful dubbing and running of free shows, rendering of present two shows named "Oasis in Space & Astronaut" matching display resolution of projectors supplied, lighting, user training etc.), after one month of satisfactory & successful operation of the whole system and after observing the successful compatibility and stability of the existing electrical/civil infrastructure during the operation of the projection system supplied (starting date of one month of operation of the whole system shall be reckoned from the date of handover of the complete system to "HCSI&T").
- c) 100% payment of the supplier for dubbing of shortlisted free shows in Hindi language and other permissible editing shall be released after 30 days of running of these shows (after dubbing) on new system supplied satisfactorily at KCMP, Kurukshetra. Starting date of one month of running period shall be reckoned from the date of handover of the complete projection system (with shows) to Council.

- 3.25 **Security Deposit:** The Security Deposit shall be 5% as applicable of the gross value of work ordered. The bidder will be required to submit security deposit (5%) in the form of Bank Guarantee issued by Indian Nationalized Bank with DS&D (valid for a period of three years plus 90 days beyond) within 15 days from the date of award of contract in order to ensure to fulfill its onsite warranty obligations and as performance security. The security deposit shall be released after expiry of the three years of onsite purchase warranty/defect liability period plus 90 days. In case of cancellation of the contract, the Security Deposit submitted by the supplier in the form of Bank Guarantee shall be revoked and the amount necessary to make up this loss shall be recovered from this bank guaranty/EMD deposited or any payment due of the successful bidder under this contract with DS&D.
- 3.26 The sample format of index for submission of information and documents under Technical Bid envelope will be as per **Annexure-G** appended with this document. Sample format for submission of prices under financial bid envelope will be as per table given at **Annexure-H**.
- 3.27 The selected bidder shall be responsible for proper co-ordination with Planetarium and continuous supervision of all the works at site to ensure the desired quality of workmanship and use of specified materials and to achieve the end result.
- 3.28 All the O.E.Ms of the items quoted in the tender should have service centers in India either directly or through channel partner(s) as on the date of release of tender.
- 3.29 No bidder shall be entitled to submit more than one bid whether jointly or severally. If he does so, all bids wherein the bidder has participated shall stand disqualified.
- 3.30 The successful bidder shall obtain necessary trade and other licenses/permissions as may be required to carry out the tendered job at KCMP and shall also be responsible for Compliance of all statutory rules and regulations which may be in force time to time from the appropriate authorities at their own cost.
- 3.31 DS&D reserves the right to amend / withdraw any of the terms and conditions in the tender document or to reject any or all tenders, in full or part, without giving any notice or assigning any reason. DS&D shall also not be bound to accept merely the lowest offer but the technical suitability, capability and superiority of the concept / technology interface / system etc. shall be of prime consideration for selection of the agency.
- 3.32 Uploaded documents of valid successful bidder will be verified with the original documents before signing the agreement. The valid successful bidder has to provide the original documents to the concerned authority on receipt of such letter.

4. REQUIRED MINIMUM TECHNICAL SPECIFICATIONS OF 2D DIGITAL IMMERSIVE PLANETARIUM PROJECTION SYSTEM

4.1 PROJECTORS :

a. Below are the minimum specifications of the required equipments, however bidder may offer equipment with better/higher than the given below given specifications:

Sr. No.	Parameter	Remarks
1	No of Projectors required	Two or more projectors at the periphery of the dome.
2	Display Technology:	DLP/RGB
3	Minimum brightness	9500 ANSI Lumens/6100 RGB ANSI Lumens or better
4	Static/Native contrast ratio	1000:1 or better
5	Native Resolution	3840 x 2,400 (4K UHD) / 2,716 x 1,600 (WQXGA+ native) with signal processing at 60 Hz or better. <i>(Bidder will upload detailed technical note and drawings to explain how pixels are counted and how the resolution is achieved in technical bid)</i>
6	Light source and its life	Laser phosphor/SI, NXL® + optional IR LED Life : Minimum 20,000 hours or better.
7	Projector brands allowed	BARCO, Norxe, Digital Projection, Sony
8	Inputs	HDMI 2.0 , IR, RJ45, USB or better
9	Operating Temperature Operating Humidity	10 °C to 35 °C or better 20% to 80% (no condensation) or better
10	Power Requirements	200-240V, 60 Hz
11	Fish eye Lens	Lens should be professional grade not fish-eye conversion or adaptor type, lenses should be specifically designed for multiple projector configurations on dome screen, fish eye lens must include built-in blending mask, should have adequate illumination and low distortion at the edges of the image projected on dome. Appropriate lens to use minimum projection space possible, Navistar fish-eye lens or equivalent.
12	Other Features required	Efficient cooling design, Embedded warp & blend engine, Geometric correction, heavy duty capable of continuous 24X7 operation etc.
13	Blending	With Vertical and Horizontal edge blending support
14	Accessories	Mounting structure to be supplied and installed for mounting and supporting, IR Remote, power cord etc.
15	Input Signal compatibility	Upto 120 Hz frame sequential input for resolutions varying from VGA to WQXGA (2,716 x 1,600). For 2D: 4K@60 Hz.
16	Synchronization	Frame-lock synchronization support to synchronize between multiple projectors to ensure perfect hardware assisted synchronization, 3D sync signal out for synchronization of 3D glasses.

17	Colour adjustment options	Ability to individually adjust actual RGB channels for accurate colour matching within individual projectors. Should produce true colour representation across multi-projection display for a completely uniform edge-blended image.
18	3D-enabled	Projectors should have option to run in active 3D mode (if required in future).
19	Projector location	At periphery of the dome

- b) The brand name, model, resolution, brightness, technology, type of light source and its life and other relevant details should be mentioned in the offer and published catalogue/datasheet of the original equipment manufacturers of the projectors should be uploaded in the **technical bid**.
- c) The system needs to be capable of projecting both full dome shows in 2D and active 3D (if required in future).
- d) Anaglyph and linear polarization methods for 3D projection are not accepted. Color purity and clarity need to be given more importance.

4.2 a) **Auto Blending and Geometry Correction (BG) unit:**

The system must be equipped with software and hardware to provide multi projector auto geometric alignment, edge & colour blending and brightness matching to ensure that the projection looks as seamless as possible. Projectors functions should be able to control through the software. The specifications and functionalities of this unit are as below:

Specifications	Detailed description
Image operations	Auto Geometry Correction
	Auto Edge Blending
	Auto Colour Correction and Matching
	Auto brightness Correction and Matching
	Gama Matching of Projectors
Software presets	The system must have software and hardware to adjust and calibrate the geometric auto alignment and auto edge blending of the digital projection system automatically

Please upload detailed specifications of the DSLR cameras, calibration and interface software in the **Technical bid** and give corresponding prices in the financial bid.

4.3 COMPUTER HARDWARE:

a) All the Hardware should be of reputed brand (with heavy duty components for professional use), specifically designed for handling heavy duty planetarium Active 3D (if required in future) & 2D digital 4K(UHD) full dome graphics projection use so as to be able to run 24 X 7. Sub-standard hardware is not acceptable. System should consist of minimum number of computer system(s). Computer system should be well capable of handling heavy graphics related to running active 3D & 2D full dome shows without any jerks, should support existing 5.1 surround sound audio system and accessories available at KCMP. Computer system(s) should well support jerk-free/smooth synchronization between the displays from the projectors for seamless display on dome screen. Industrial grade computer(s) with latest graphic card(s), Intel based processor(s), solid state hard drives, all necessary hardware and software suitable for planetarium systems of International Standards of latest make year and month having following minimum specifications:

- i) 8 Core Intel Xeon or Higher processor.
- ii) Working memory 4GB X2 RAM or more.
- iii) Dual Port ATI/NVidia or equivalent graphic card. The graphic card must ensure the synchronization of all video channels that make up a common overall image on the dome so that all images are displayed synchronously. The areas of overlapping images from individual projectors (so-called blending) must be invisible to viewers.
- iv) Seagate hard drives with 2TB capacity
- v) Additional SSD and RAMs may be configured to meet the overall specifications, if necessary.
- vi) Computer with monitor, backlit-keyboard, mouse & other accessories to be mounted in a single Console glazed cabinet.
- vii) No jerks/flickers or image tearing should appear on the screen.
- viii) Operating system: Microsoft Windows 11(64bit)/Linux or higher.
- ix) Integrated or added Audio card for 5.1 surround sound to support existing 5.1 audio system.
- x) Integrated Display Card to support monitor display.
- xi) Heavy duty ASUS or equivalent branded Motherboard.
- xii) Other Accessories: Backlit keyboard & Mouse, cables and connectors.
- xiii) The computer hardware & software are to be operated in latest Microsoft Windows/Linux platform with upward compatibility. All internal wiring (both power and data) works are to be arranged by the bidder. The wiring should be as per relevant standards.

b) Bidders to upload detailed specifications of all the offered computer hardware components like motherboard, graphic card, processor, O.S, RAM, HDD, tablet-pc etc. and software applications to be provided like brand name, make year, capacity etc. in the **technical bid** and give prices in the financial bid.

4.4 USER INTERFACE: Primarily there should be option to operate computers to run shows, sky-simulation software, geometric correction etc. using handheld computer like tablet-pc. Apart from this there should also be option to operate computer (if required for maintenance etc.) in desktop mode. So, there should be provision of handheld computer like tablet-pc pre-loaded with all applications controls and with connectivity with the main server. Bidders are required to quote the specifications of the tablet-pc along with networking accessories required for connectivity with main computer server in **Technical bid** and give corresponding prices in the Financial bid.

4.5 SOFTWARE:

- a) **Full dome shows player software** to play 2D full dome shows smoothly, should be able to control the show settings, should have common commands like Play, Pause, stop etc., jump to particular time in the show etc.
- b) **Sky Simulation Software:** any open-source sky simulation software available for free use in planetaria with as many features as possible from following:
 - i) Earth & Moon System Features: High Resolution Earth & Moon Map, moons of Planets as per selected options.
 - ii) Shadow to represent eclipses,
 - iii) Earth orbiting Satellites for Navigation and mapping, etc.
 - iv) High-definition textures, Atmospheric effects, high end simulation, lighting and shadow, particle management etc. features.
 - v) Interactive dome view with good resource manager and functions such as drag & drop, drag & Fly, Picking etc.
 - vi) Constellations & Grids: 88 constellations, stick figures, possibility to add arbitrary a overlays, I.A.U boundaries for 12000
- vii) Co-ordinate spheres for celestial, ecliptic and galactic systems, Meridian, Equator, Cardinal Points.
- viii) Solar System: Sun, Planets including their Moons, Minor Orbital Objects including Asteroids, Outer Solar System Objects, comets, Oort Cloud, Kuiper belt etc.
- ix) Space Missions: Cassini, Voyager & Voyager2, latest Mars missions, Pioneer, International Space Station, important Indian Spacecrafts and space missions.
- x) Milky way Galaxy: Hipparchus Star Catalog, Extra solar Planets, Open Star Clusters, Globular Star Clusters, Pulsars, Quasars, Planetary Nebulae, H II Regions, Supernova Remnants etc.
- xi) Extragalactic Space: Tully Galaxies (NGC, IC, 30,000 objects), 110 Messier Objects, Abell Galaxy Cluster, Deep Field Survey Objects, Sloan Digital Sky survey (SDSS).
- xii) Provision for viewing the Earth, Solar system & Milky Way galaxy from far away points.
- xiii) Provision of showing coordinates and labels of any celestial objects.
- xiv) Should show sky of any time and location from earth or any other planet.
- xv) Should be able to project the sky onto dome in real-time using Live feature.
- xvi) Library of images, clippings, visuals, animation on space and astronomy related objects and events.

Note: Bidder to list features of software in technical bid & shall show the above features of the software in video of Technical Presentation.

- 4.6 **LED Strip lighting:** LED strip lighting to be installed inside the peripheral cove area for purpose of sufficiently illuminating the theatre during Entry, Seating, Movement and Exit of the public. DMX integration and control of lights with computer is not required, Only Fade-in and Fade-out functions shall be there in order to Fade On lights during public entry/exit and Fade Off during show, so bidders shall provide this fade-in/fade-out function control. The lighting should be with 7 years of life and 3 years of comprehensive warranty. Give specification of lighting and associated components in technical bid and price in financial bid.

4.7 SURROUND SOUND SYSTEMS:

Bidders are required to make the existing 5.1 surround audio system to be integrated with the new projection system being offered. List of existing installed audio components:

Sr. No.	Equipment	Make	Model	Quantity
1	Low noise line mixer, 16 input	Behringer	RX1602	01
2	Amplifiers	Crown	Cts1200	03
3	Mike	Shure	515SDX	01
4	Network signal processor	BSS	Soundweb 9088iis	02
5	Remote control for n/w signal processor	BSS	Soundweb 9088	01
6	DVD Player	Denon	DD-3910	01
7	24 track digital recorder	Fostex	D2424LV	01
8	230 V AC Power controller	Pulizzi Engineering Inc	Z Line	02
9	Audio mixers	RDL	TX-MX2R	0 2
10	Speakers	Community	CPL43-94B	0 5
11	Sub-Woofer	Community	CPL55-B	0 1
12	Ethernet 4 port switch	Cisco	BEFSR41	0 1
13	8 port serial port hub	Comtrol	Device Master	0 1
14	Equipment Rack			0 1

Before submitting offers in the tender, bidders shall visit KCMP to check the workability and compatibility of the existing audio system. It is sole responsibility of the bidder to examine the existing audio system installed at KCMP and make sure to connect existing audio system with the new system being offered by them in tender, so that all the functions of existing audio system should work fully after connecting with the new projection system to obtain the 5.1 surround sound effect in shows. In case bidder feels any changes in any component of the existing audio system, then details of the same should be given in the **Technical bid** and corresponding prices should be given in the Financial bid.

4.8 **LCD Projector:** Existing NEC LCD projector, Model: MT1065 to be connected with the system.

4.9 **Integration of existing 15 KVA Online UPS, electrical distribution panels etc.:** It is required that the show being run using the projection system and related accessories (being offered by the bidder in this tender) should be able to run for at least 30 to 40 minutes in absence of electrical power supply at KCMP, therefore the bidders are required to visit KCMP for assessment of sufficiency and performance of the existing infrastructure available at KCMP like 15 KVA online UPS, electrical distribution panels etc. In case the existing infrastructure is insufficient or need modifications/upgradation to meet this purpose, the bidders are required to mention changes required in the existing electrical setup in the **Technical bid** envelope and give corresponding component wise prices in the financial bid.

5. SCOPE OF WORK

5.1 NEW DIGITAL PROJECTION SYSTEM AND ASSOCIATED WORKS:

- a) Installation of new digital projection system [which includes digital projectors], projection computer hardware i.e. handheld tablet-pc for operator's interface, server for graphics handling, full dome show player, sky simulation software, accessories, wirings etc. for seamless unidirectional projection of full dome 2D shows in 4K(UHD) as per minimum or better hardware and software defined in this document. Testing, commissioning, running of the whole system, dome screen cleaning, rendering of existing two shows in 2D- 4K (UHD) resolution, connecting existing 5.1 audio system, providing LED light strip, providing 2d full dome shows in 4k(UHD) resolution (free with system) after dubbing in Hindi as per titles shortlisted by the purchaser, staff training, (Complete system with 3 years onsite Comprehensive purchase warranty/Defect Liability period starting from the date of handover of the complete system). The purchase warranty should include maintenance and replacement of faulty parts and/or software with new ones of equivalent brand, performance and specifications.
- b) The system needs to be capable of projecting full dome shows in 2D in 4K(UHD) resolution.
- c) If any disparity in terms of projector intensity, colour, alignment or otherwise is noticed and reported during the warranty period, immediate re-addressal of the issue through replacement shall be within the scope of the supplier.
- d) Data cabling using fiber optic cables and high-speed switches to carry loss-less video signals from source computer(s) to the projectors.
- e) Properly dressed power and data cabling for all systems and devices so as not to cause interference with video signals and data networks.
- f) The digital projector model offered should be of latest make with life time and availability of spares for minimum 7 years starting from the date of handover of equipments and associated components to KCMP. The bidder shall give the make, model, specifications and Date of Manufacture of the projector in **Technical bid**. The projectors should be of current year latest make.
- g) Bidder shall upload complete functional drawings related to installation, wirings, connections and operator console & projector's location in the dome in **technical bid**.
- h) Apart from physical diagnosis at KCMP onsite, supplier shall also provide relevant software maintenance releases and updates/anti-virus patches on external media and will also provide the 24X7 telephonic/remote desk top support to KCMP through the installation of the maintenance release/update/troubleshooting and fault resolution of systems from time to time.
- i) The system should be designed keeping in view that it must be manageable from a single computer console (through tablet-pc as well as through desktop screen when required). All accessories needed for easy accessibility of devices for maintenance must be considered under the scope of the work. Components like Computers CPUs, audio amplifiers to be arranged properly in closed cabinets, with cables labeled and arranged to prevent exposure to dust and for safety. Existing cabinets/cases could also be used.
- j) Bidder to mention in their technical proposal that how they will achieve the required display resolution on dome after geometric correction (as per the native resolution of the projectors offered). These details to be uploaded in the **Technical bid**.
- k) Special mounting for the projector and all required alignments for final adjustments etc. shall remain within the scope of the supplier. The supplier must consider cost effective non rusting materials and anti-corrosive treatment for metallic structure of projector. All safety measures shall be considered

while designing for safety of people and equipment. The supplier shall remain responsible for closely monitoring the work at site to ensure that desired quality of work is executed.

- l) The design for all systems should be forward looking and should allow for future upgradation and development within the systems currently proposed and provided. The proposed design should be of open architecture to allow for future upgradation.
- m) Bidder shall arrange for installation of projector in such way that it should be in-line with the dome ambience and should not obstruct audience's view. Bidder shall also upload drawings in **Technical bid** showing the exact position of the projector in the dome and how the projector will be fixed.
- n) This work also includes making the two shows titled "Oasis in Space" and "Astronaut" (both Hindi and English language versions) compatible to run in 2D-4K resolution with the new projection system (without any kind of change/reduction in original show contents & quality). Bidder/Supplier must not distribute to and/(or use these shows) for anyone or/and for his own purpose and must not make changes in these shows other than as desired by DS&D in this tender.
- o) Bidders are also required to upload Networking and data cabling schematic layout in **technical bid**.
- p) During installation and commissioning of the equipment, bidder shall arrange all tools and tackles, ladders, scaffoldings etc. Tools, tackles, scaffoldings, cleaning materials, labour personnel etc. shall not be provided by the planetarium.
- q) Site Supervision, Set Up, Testing and Commissioning, Training, Planned Maintenance Services, Audio Visual System Management etc. shall all be under the scope of the work of the bidder.

5.2 LED Strip lighting: LED strip lighting to be installed inside the peripheral cove area for purpose of sufficiently illuminating the theatre during Entry, Seating, Movement and Exit of the public. DMX or integration and control of lights with computer is not required, Only Fade-in and Fade-out functions shall be there in order to Fade On lights during public entry/exit and Fade Off during show, so bidders shall provide this fade-in/fade-out function control. The lighting should be with 7 years of life and 3 years of comprehensive warranty.

5.3 SURROUND SOUND AUDIO SYSTEM: 5.1 CHANNEL :

- a) Existing 5.1 surround audio system to be integrated with the new projection System. List of existing audio components:

Sr. No.	Equipment	Make	Model	Quantity
1	Low noise line mixer, 16 input	Behringer	RX1602	01
2	Amplifiers	Crown	Cts1200	03
3	Mike	Shure	515SDX	01
4	Network signal processor	BSS	Soundweb 9088iis	02
5	Remote control for n/w signal processor	BSS	Soundweb 9088	01
6	DVD Player	Denon	DD-3910	01
7	24 track digital recorder	Fostex	D2424LV	01
8	230 V AC Power controller	Pulizzi Engineering Inc	Z Line	02
9	Audio mixers	RDL	TX-MX2R	02
10	Speakers	Community	CPL43-94B	05
11	Sub-Woofers	Community	CPL55-B	01
12	Ethernet 4 port switch	Cisco	BEFSR41	01
13	8 port serial port hub	Comtrol	Device Master	01
14	Equipment Rack			01

- b) Before submitting offers in the tender, bidders are required to visit the planetarium to check the workability and compatibility of the existing audio system with the new projection system being offered by them in the tender.
- c) If any component of the existing audio system needs to be replaced or any new component needs to be added, then bidders should mention the same in their proposal in **technical bid** and quote corresponding rates in the financial bid.
- d) As per suggestion of the bidder, in case, any new component is purchased from the bidder and added to the existing 5.1 audio system, then bidder shall provide support for the 3 years of onsite comprehensive warranty/defect liability period of that component starting from date of handover to KCMP and life of such component(s) should be minimum 7 years i.e. with availability of spares and support for 7 years from date of installation at planetarium.

5.4 ASSESSMENT REGARDING SUFFICIENCY OF THE EXISTING ELECTRICAL, AIR CONDITIONING, CIVIL AND ASSOCIATED INFRASTRUCTURE OF KCMP:

- a) Planetarium has a 15 KVA Online UPS for power backup of existing projection system and 55-ton centralized Air-conditioning plant. Bidders shall visit the planetarium and physically check the existing 15 KVA Online UPS, earthing, Air-conditioning and other existing associated electrical infrastructure at KCMP in order to thoroughly understand the sufficiency, compatibility and performance of the existing infrastructure and judge its suitability for the new projection system and associated components being offered in this tender by the bidder.

- b) As already mentioned under Clause 4.9 above, in case, if bidder feels that the existing 15 KVA online UPS, Air-conditioning setup or other existing components/existing electrical, mechanical, civil infrastructure is insufficient and/or needs modification/upgradation in order to effectively support the new projection system (for its efficient working) being offered by the bidder in this tender, then bidders are required to propose the changes required in the existing setup with justification in details in the **technical bid** and quote corresponding prices of the changes required in the Financial bid.

5.5 USER TRAINING FOR OPERATION, MAINTENANCE OF THE SYSTEM AND USE OF PLANETARIUM SOFTWARE APPLICATIONS ETC.

- a) Hands on training of the planetarium staff shall begin right from the installation of the system.
- b) The supplier has to train KCMP staff members in operation of shows, system day to day maintenance and upkeep, computer software and hardware maintenance, O.S crash recovery, regarding various time to time system software and application software, anti-virus updates. Training must include operation and periodic maintenance of projectors like cleaning, calibration of their geometric alignment, brightness uniformity, Fish eye lens placement and focusing, periodic cleaning, audio checking and testing, use of various software like use of sky simulation s/w features to generate sky, celestial objects and phenomena, full dome player and its practical use and demo for viewers. Training on general and specific maintenance of 5.1 audio system etc.

5.6 USER INTERFACE: Primarily there should be option to operate computers to run shows, sky-simulation software, geometric correction, projector configuration & settings etc. using handheld computer like tablet-pc. Apart from this there should also be option to operate computer (if required for maintenance etc.) in desktop mode. So, there should be provision of handheld computer like tablet-pc pre-loaded with all applications controls and with connectivity with the main server. Bidders are required to quote the specifications of the tablet-pc along with networking accessories required for connectivity with main computer server in **Technical bid** and give corresponding prices in the financial bid.

5.7 FULL DOME SHOWS:

- a) Bidders are required to provide at least ten (10) 2D full dome shows in 4K (UHD) resolution, with time duration of 20 to 40 minutes, with free license to exhibit for at least 10 years in planetarium with the projection system being offered. The shows should be on the topics related to Astronomy like Constellations, Night sky watching, different Celestial events, telescopes, space exploration and other topics related to space science and similar content which are suitable for interest of Indian viewers of all age groups. Bidders should give list of twenty (20) or more such free shows in 4K (UHD) resolution for enabling purchaser to choose ten (10) suitable free shows out of these.

List of free 2D shows with details like license information, show title, duration, audience type (age group), name of show producer, date of release, online links for viewing the trailers of these shows, documentary proofs related to free distribution, exhibition and editing the narration language of these shows etc. should be given in the format appended at Annexure-F1 and upload same in the Technical bid envelope and quote corresponding language dubbing charges (in Indian Rupees) in the online Financial Bid as per sample in table-2 of ANNEXURE-H only (Sample formats of indexes for Technical and Financial Bid envelopes are appended with this tender document for convenience of the bidders). After short listing of the free ten Shows in 2D format by purchaser, the bidder shall arrange for dubbing of these shows in Hindi language. Payment for dubbing the shows in Hindi language shall be as per the dubbing charges quoted for these shows in the financial bid.

- b) For shows to be supplied, the Supplier shall make the show video format as per full dome 4K(UHD) resolution for 2D shows, audio format as per 5.1 surround sound audio, visually sharp and compatible with the new digital system being offered in this tender.
- c) Language of shows should be Hindi & English. All full dome shows must be with 5.1 Dolby digital surround sound formats and with the optimum display resolution of the projection system being supplied. Necessary Scripts and original sound tracks must be supplied for future language modification. Bidders shall not offer shows with content which has become obsolete scientifically like: old space mission which have completed, old celestial events which have completed etc. For example: *Showing "Pluto" as one of the nine planets is presentation of obsolete content because it is placed under the category of "dwarf planets" now.*
- d) Supplier/Bidder selected for award of contract shall deliver the ordered shows at KCMP maximum within time duration as given under clause no: 3.16(b). The delivery period, which will be reckoned from the date of the award, will be guaranteed under penalty as in Clause No.3.19.
- e) The bidder/bidders selected for award of contract shall provide shows in English and Hindi languages. After award of work, bidder shall firstly provide sample video clips of the show for approval of the voice sample of the artist from purchaser. In case if the voice of Artist doing narration in Hindi language, show quality etc. is not found suitable by the purchaser, the bidder shall do correction/replacement of voice artist and has to again get the new sample approved from the purchaser until found satisfactory by the purchaser. After approval of show sample from the purchaser, the supplier shall supply, test and run the full and final show at planetarium. This all has to be done within the time as specified under clause 5.7 (d) above. In case of delay penalty shall be imposed as per Clause No.3.19.
- f) Bidder should upload an undertaking in the technical bid envelope that all 2D shows offered in this tender are free for exhibition at KCMP for at least a period of 10 years starting from the date of handover of the shows to KCMP. Bidder should also undertake that in case of any copyright claim, legal notice and/or litigations, bidder/supplier shall be solely responsible to attend the same and supplier will reply to such notices/attend legal proceedings of such notices/litigations and/or pay compensations/penalties imposed as a result of court/statutory authority's orders initiated against DS&D/HSCSI&T.

5.8 CLEANING OF PERFORATED ALUMINIUM DOME SCREEN

- a) Site preparation: Planetarium will remove all existing equipments, chairs, carpet etc. Bidder to whom work is allocated will remove the existing silica wool insulation sheets from rear of the aluminum dome panels. Bidder will arrange for all tools, tackles, moveable scaffoldings, platforms, ladders, cleaning materials etc. required for the work at its expense. Bidder shall deploy skilled/un-skilled labor worker firstly to do cleaning of the peripheral maintenance gallery floor and walls by brooming, dusting, vacuum cleaning and wet moping in order to make the whole area completely dust free. After removal of the chairs, the iron fasteners grouted in the floor for holding the chairs shall remain fixed as it is in the floor with their one end of approximate height 1.5 inches exposed above the floor for refixing the chairs after completion of the work. Therefore, workers deployed for dome screen cleaning have to take care while movement on the floor and DS&D/HSCSI&T has no responsibility in case of any injury or other interruption. There should be no damage to the floor and fasteners due to scaffolding movement or other activities involved in the dome screen cleaning work. In case of any damage or loss to planetarium same shall be recovered from the bidder or corrected by the bidder at his own cost.
- b) Thorough vacuum dry suction cleaning of dome screen from rear (upside surface) and front (inside surface) of the panels. Wet cleaning with non-reactive soft liquid detergent from inside and outside/upside to make it completely dust free. Drying up the wet/moist panels completely. Replacement of insulation silica wool pads with acoustic poly-synth material and acoustical tissue/fabric in rear of the dome. The cloth used for cleaning should be very soft, free from fur/tomentums. Cleaning work should be carried out with utmost care and safety of dome screen, dome floor, other items as well as personnel doing cleaning.
- c) All the waste materials like existing silica wool sheets, dust, waste water/solutions & other materials used for cleaning need to be discarded safely after completion of the work at suitable place in consultation of the KCMP. The floor area, internal peripheral walls etc. also need to be cleaned thoroughly after completion of the work.
- d) In case of rusting, iron parts of dome frame need to painted. Preference shall be given to the agencies having prior experience in this line and work. Bidders to upload copies of documents like past work orders, performance/experience certificates issued by the customers related to cleaning of similar planetarium dome screens in **Technical bid**. Before applying for the tender, bidders may visit KCMP for physical inspection of the dome screen in order to assess the condition of dome surface, magnitude of work and accordingly give prices, corresponding time period for completion of work, type and quality of cleaning materials they will use etc. in the **Technical Bid**. Bidders to give cost of cleaning, replacement of silica wool insulation sheets in the **Financial bid**. Tools, tackles, ladders, scaffolding, labour personnel and consumables shall be in the scope of bidder for this work. KCMP shall provide electrical connection, lighting, water supply and storage space only for belongings of the bidder. Loss due to damage to the dome screen, dome floor, fasteners grouted on floor etc. during cleaning of screen shall has to be rectified by the bidder at his own expenses. During dome screen cleaning, in case of any problem in the screen surface reflectivity or

depletion in the screen reflectivity then the required or formation of any kind of patches like bird-cage effect etc. due to reaction of chemical/solutions or marks affecting the picture quality, bidder/supplier shall remove such faults at his expense. In case of acoustic treatment done is not satisfactory and material of the poly-synth sheet is not satisfactory, the bidder shall rectify/replace the same immediately. The paint coating on the aluminum perforated screen should not be damaged due to cleaning on any condition.

5.9 COMPREHENSIVE ON-SITE MAINTENANCE CONTRACT (C.M.C):

- a) After the expiry of three years of Comprehensive purchase warranty of the projection system components like equipments, lighting, software etc. HSCSI&T may at its discretion go for Onsite Comprehensive Maintenance Contract. Bidders are required to quote charges for C.M.C on yearly basis in the financial bid format. However, HSCSI&T may or may not give order for C.M.C to the bidder. If the services of the bidder during the C.M.C period are up to the satisfaction of HSCSI&T, then HSCSI&T may extend the C.M.C. award year after year successively. The HSCSI&T reserves the right to award or not award C.M.C. to the bidder. C.M.C shall cover all the equipments like projectors, computer system hardware, software, Additional projector, Computer Hardware and related accessories.
- b) There shall be no advance payment in case of C.M.C. Payment in case of C.M.C. shall be biannual after the expiry of every six months and subject to the satisfactory services of the agency. Payment shall be in Indian currency.
- c) During C.M.C bidder shall provide on-site comprehensive support at Planetarium. The CMC shall include preventive maintenance, replacement and/or repair of faulty parts of all the equipments, software troubleshooting/upgradation etc.
- d) During CMC, If any faulty equipment, spare, accessory, software, supplier's personnel etc. is required to be transported/travel from KCMP to equipment's O.E.M.'s Lab workshop in India or abroad and/or vice-versa it shall be the responsibility of the supplier to do so at his own expenses. HSCSI&T shall not pay separate charges for transportation of goods and/or supplier's personnel, transit insurance of the items and applicable taxes etc.
- e) Apart from the system incident faults, C.M.C. should have at least one fixed maintenance sessions annually in which bidder will depute their engineer to inspect the equipment, software etc. During this check bidders engineer will repair, fine tune, clean, re-install, correct, update/upgrade etc. the equipment and/or software functions etc.
- f) It shall be the responsibility of the supplier to keep the KCMP's staff updated regarding various maintenance procedures from time to time and regarding the updates of various software applications and hardware upgrades.
- g) The parts replaced should be of equivalent brand, performance and functionality. In case if the parts replaced are not of equivalent performance and functionality then the supplier shall immediately replace the same after receipt of intimation from HSCSI&T.

- h) All replaced parts shall remain as property of HSCSI&T, Faulty parts shall be the property of supplier. All the parts including networking cables, connectors, etc. that may be required to maintain the system shall be supplied by the supplier at their own cost.
- i) The supplier will maintain the minimum essential spares at their own stores and the required tools / test equipment / software so as to reduce the break-down time.
- j) However, all round efforts must be made to set right the system in shortest possible time. Service shall be available for at all times for 365 days in a year. In case of delay in providing the services under CMC, penalty shall be applicable as per **clause no: 3.19**.

5.10 ADDITIONAL COMPUTER HARDWARE & SOFTWARE:

- a) One additional projector as backup with specifications similar to that of primary projectors to be used for projection, pre-configured so that it could replace the faulty projector (if required), plugged and played to avoid disruption of shows.
- b) One additional computer CPU of the computer used as server for graphic handing for projector(s) (with ATI/NVIDIA display card fitted) completely configured with same hardware and software, drivers etc. ready to plug and play needs to be provided as backup, so that it could be used in case of fault in the primary computer to avoid disruption of shows for public.
- c) The hardware should be of same quality, brand, features and performance as used in Primary Computer system with projection system. Bidders are required to quote prices of additional computer CPU to be used as backup in **Financial bid** envelope.
- d) Additional Computer Hardware/Software should also be with minimum comprehensive onsite purchase warranty of 3 years & life of 7 years and bidder should also cover it under the Comprehensive Maintenance Contract (as given under clause no: 5.9 above).

5.11 BUY BACK OF EXISTING SPITZ SCIDOME DIGITAL AND OPTO-MECHANICAL PROJECTION SYSTEMS:

a) HSCSI&T also intends to sale its existing Spitz Scidome Digital And Opto-Mechanical Projection Systems in as is where in condition without computer hard disks. The details of the existing hardware given in below table:

Sr. No.	Items
1	<p>Spitz 1024 opto-mechanical system with shroud (with spares available, if any)</p> <ul style="list-style-type: none"> Azimuth Projector 001-Constellation Projector 001-Compensating Ring Assembly 001-Altitude Projector 001-512 Horizon Shrouds 001-Elevator Package (Motor: 1/3 HP, 220 V/50Hz) with power supply and Mechanical assemblies. 001-P-MAC System Panel 001-Instrument Modifier 001-1024 Instrument Core Assembly 001-Star Projector 001-20 W Xenon Lamp

	001-Power Supply Xenon Starter Motion Console Controls. 001-Projection Console Controls. 001-Auxiliary Console Controls. 001-Solar system Analogs 001-Encoder's, encoder motors, motor driver cards & associated power supplies. Console Core Assembly 001-Console Mounted Flat Screen Monitor 001-Automation Control CPU Assembly 001-Cable Kit 001-Code Select Assembly 001-Time Code device: SMPTE generator, Make: Sierra Frontier.
2	165 Degree Fisheye Lens 001-Projector Stand Assembly 001-Automation Computer (IBM Microsoft XP Professional Service Pack3.40Ghz, 512 RAM) 001-Renderbox Computer (BOX Technologies, 3DBOXX-W4GXX) (without hard disk) 001-Equipment Rack Cable Kit 001-Ethernet (LinkSYS, Ether Fast Cable/DSL Router Port Switch) 001-DVI Detector, sender & receiver unit (Make: Gefen)
3	Scidome 3000 Package 001-DLP Projector 5000 Lumens (Christie: DS+5K, 1000 Watt, Native SXGA+1400x1050 resolution, with remote control). 001-165 Degree Fisheye Lens 001-Projector Stand Assembly 001-Automation Computer (IBM Microsoft XP Professional Service Pack3.40Ghz, 512 RAM) (without hard disk) 001-Renderbox Computer (BOX Technologies, 3DBOXX-W4GXX) 001-Equipment Rack 001-Rackmount Packages 001-Power Sequencer 001-700 Watt Xenon Lamp Fitted in DLP Projector (1000 Hours Rated Life) 001-Cable Kit 001-Ethernet (LinkSYS, Ether Fast Cable/DSL Router Port Switch) 001-DVI Detector, sender & receiver unit (Make: Gefen)

- b) Bidders should visit KCMP to assess the condition of the above mentioned existing equipments and thereafter quote amount in the online Financial bid, sample format of table is appended at **ANENXURE-H (Table-3)** in this document.
- c) Computer systems will be handed over to successful bidder without any software i.e. without hard disks.
- d) Buy back items need to be lifted by the vendor within the period of 210 days (from award of work) at his own expenses.
- e) The amount quoted by the successful bidder for buyback of old equipments shall be reduced from the payments to be made to the bidder.

ANNEXURE: A**As per Clause No. 1 (B): TECHNICAL CAPABILITY**

	A	B	C	D	E	F	G
Sr. No.	Name of Project	Names, designations, official email id's and contact details of concerned officers who are actually owning & dealing with the systems provided by the bidder	Starting date of project	Date of Completion of project	Total cost of the components of the works awarded (in INR)	Detailed Scope of Work	Whether operational Or not? (mention Yes or No)
					Mention page numbers of the annexure	Mention page numbers of the annexure	

Note:

1. In case order is awarded in foreign currency then conversion rate on the date of placement of order may be taken for converting in INR value.
2. **Column E of above table:** Upload project-wise copies of customer's work orders with price-breakup along with detailed component-wise/item-wise cost in INR, copies of satisfactory work completion certificates & upload copies of certificates issued by customers regarding providing satisfactory maintenance support services during warranty period related to previous projects mentioned by the bidder.
3. **Column F of above table:** Enclose detailed Scope of work of the project.

Annexure-B as per Clause 1(B): Manufacturer's Authorization Form (MAF)

(To be submitted on OEM's Letterhead at the time of submission of Bid)

Letter No.

Date:

To,

The Directorate of Supplies and Disposals,
SCO No. 9, Sector 16, Panchkula Haryana

Reference: Tender No.: _____ Dated: _____

Dear Sir,

I/We, who is/are established and reputable manufacturers / producers of having factories / development facilities at (address of factory / facility) do hereby authorize M/s (*Name and address of bidder*) to submit a Bid, and sign the contract with you against the above Bid Invitation.

I/We hereby extend our full guarantee and warranty for the Solution, Products and services offered by the above firm against this Bid Invitation. I/We certify that the minimum life of (*projectors*/computer system hardware/other audio-video hardware like supplies, extenders, switches, tab, Software** etc.*) quoted by our afore-mentioned authorized agent/dealer in this tender is minimum seven (7) years from the date of billing to DS&D. During this period of seven years, we will provide repair/spares support to our aforementioned dealer/agent. The model of the equipment quoted by our authorized dealer/bidder in this tender is not end-of-sale/end-of-support/end of life and its servicing, repair spares are available up to 7 years from the date of billing to DS&D.

We also undertake the products as DS&D may opt to purchase from the Supplier, provided, that this option shall not relieve the Supplier of any warranty obligations under the Contract; and We duly authorize the said bidder to act on our behalf in fulfilling all installations, Technical support and maintenance obligations required by the contract.

Yours faithfully,

M/s _____

(Signature of the OEM's Managerial level responsible officer)

Printed Name:

Designation:

Seal Date:

Place:

Business Address:

- **Note:** ***in case of Software, OEM should declare that all the software application licenses should be perpetual software licenses. Licenses of Software etc. shall be in name of "Haryana State Council for Science, Innovation & Technology" (HSCSI&T).*

*For Projector: In case of fault, OEM should declare that the fault diagnosing and repair will be carried out at site (KCMP) by their expert person and OEM will bear the expenses related to repair, spare, service charge. carriage of projector(s) to and from the OEM's lab.

Annexure-C as per Clause 1(C)
Annual Turnover for the last 3 years as per the Audited Accounts

Name of the Bidder: _____

Sr. No.	Financial Year/Calendar Year	Total Turnover Indian Rupees in Crores (INR)
1	Financial year 2020-21	
2	Financial year 2021-22	
3	Financial year 2022-23	
	Average Annual Turn over	

This is to certify that the above information has been examined by us on the basis of relevant documents; books of accounts & other relevant information and the information submitted above is as per record and as per detail annexed.

Name of Chartered Accountant firm :

Name & Signatures of Chartered Accountant with office seal

Membership No.-

UDIN:

Place:-

Date:-

Note: upload copies of audited balance sheets of above financial/calendar years, CA certificate with CA's Registration number & Seal.

Annexure-D: Mandatory Undertaking as per Clause No: 1(D) on bidders' official letterhead.

To,

The Directorate of Supplies and Disposals,
SCO No. 9, Sector 16, Panchkula Haryana

Subject: Supply, Installation, Integration, Testing and Commissioning of Full Dome Digital 2D Multi-channel Projection System, shows, dome cleaning and associated works with 3 years Comprehensive Onsite Warranty at Kalpana Chawla Memorial Planetarium at Kurukshetra.

Reference: Tender No.: _____ Dated: _____

Sir,

I/We _____ hereby undertakes that I/We:

- a) We have read, understood, fully agree and we are fully capable to comply with all the terms and conditions of this tender.
- b) I/We have not concealed any information related to planetarium projects and the information submitted by me/ us in this tender is true and best to my/our knowledge.
- c) not be insolvent, in receivership, bankrupt or being wound up, not have its affairs administered by a court or a judicial officer, not have its business activities suspended and must not be the subject of legal proceedings for any of the foregoing reasons;
- d) not have, and their directors and officers not have, been convicted of any criminal offence related to their professional conduct or the making of false statements or misrepresentations as to their qualifications to enter into a procurement contract within a period of three years preceding the Commencement of the procurement process, or not have been otherwise disqualified pursuant to debarment proceedings;
- e) Not have a conflict of interest in the procurement in question as specified in the bidding document.
- f) Comply with the code of integrity as specified in the bidding document.
- g) We confirm that our company (*full registered name of company*) is currently not blacklisted by any of the State or UT and or Central Government or any of its agencies in India on any ground including but not limited to indulgence in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as on date of bid submission.

Thanking you,

Yours sincerely,

M/s _____

(Signature of the bidder)

Printed Name:

Designation:

Seal Date:

Place:

Business Address:

ANNEXURE-E

POWER OF ATTORNEY

(As per Clause no: 3.4 (b) of tender document)

[To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the agency who is issuing the power of attorney]

Know by all men by these presents, I/We (Name of the Bidder and address of their registered office) do hereby constitute, appoint and authorize Mr./Ms. _____ (name and residential address of Power of attorney holder) who is presently employed with me/us and holding the position of _____ as my/our Attorney, to do in my/our name and on my/our behalf, all such acts, deeds and things necessary in connection with or incidental to my/our Proposal for the " Supply, Installation, Integration, Testing and Commissioning of Full Dome Digital 2D Multi-channel Projection System, shows, dome cleaning and associated works with 3 years Comprehensive Onsite Warranty at Kalpana Chawla Memorial Planetarium at Kurukshetra", including signing and submission of all documents and providing information/responses to the DS&D, representing me/us in all matters before DS&D, and generally dealing with the DS&D, in all matters in connection with my/our Proposal for the said Project.

I/ We hereby agree to ratify all acts, deeds and things lawfully done by my/our said Attorney pursuant to this Power of Attorney and that all acts, deeds and things done by my/our aforesaid Attorney shall and shall always be deemed to have been done by me/us.

For Name: _____

Designation:

Date:

Time:

Seal:

Business Address:

Accepted,

_____(Signature)

(Name, Title and Address of the Attorney)

Note:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.
- The Power of Attorney shall be provided on Rs. 100/- stamp paper.
- The Power of Attorney should be supported by a duly authorized resolution of the Board of Directors of the Bidder authorizing the person who is issuing this power of attorney on behalf of the Bidder.

Annexure-F1 [as per Scope of Work clause no: 5.7 (a)]

Details of the 2D Full Dome Shows in 4K(UHD)-resolution with license for free exhibition, distribution etc. for period of 10 years

Sr. no.	Show Title	Fill details corresponding to each parameter given below: <ul style="list-style-type: none"> • <i>license information,</i> • <i>show title,</i> • <i>duration,</i> • <i>audience type (age group),</i> • <i>date of release,</i> • <i>online links for viewing the trailers of these shows,</i> • <i>show producer,</i> • <i>documentary proofs related to free distribution, exhibition and editing the narration language of these shows etc. need to be mentioned below for each show title.</i> • <i>List any documents attached corresponding to the show title offered].</i> • <i>Etc.</i>
1		
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Annexure-G

SAMPLE INDEX FOR TECHNICAL BID

Sr. No.	Documents/information required	Status of submission Please fill: (Yes or No)	Please mention Page Number as per numbering given to the documents Uploaded
1	All the documents submitted by the bidder as part of its Technical Bid are Self-attested by the Signing authority of the bidder.	Yes/No	
2	Signed copy tender document (by signing on each page, as acceptance of all the terms and conditions of the tender) uploaded?	Yes/No	
3	Name and Address of the bidder to whom the order will be placed Mobile No./Telephone no., FAX No.: Names, Contact no.'s, Email IDs & Colored Photos of key personnel of the bidder like Managing Director/Director/Owner/Proprietor(s): Date of incorporation of company and total experience in this line:	Please fill	
4	Whether capable to supply and install the Full dome System as per minimum requirement and Technical Specifications given in this Tender (Please mention "YES" or "NO").	(Yes/No)	
5	Single point contact details for all post installation service-related issues with hierarchy levels (if any).provide detailed address and set up link from where support for maintenance during post warranty shall be offered by the bidder.	Please fill or upload document	
6	[As per clause:1 (A) of "pre-qualification/eligibility conditions for bidders"] upload copy of valid Certificate of incorporation/Business License/Registration under any Indian govt law, upload copies of registration with government, Bidder's PAN card, GST registration certificate & Bidder's business profile & all other details as per clause highlighted clause above.		
7	As per clause:1 (B) of "pre-qualification / eligibility conditions for bidders"] Upload list of similar work(s) implemented in last ten (10) years ending last day of the month previous to the month in which this Tender is published. Work(s) done in last five years out of these ten years (ending last day of the month previous to the month in which this tender is published) which are operational should be Highlighted/indicated clearly & all other details as per clause highlighted above.	Yes/No	

	<p>upload copies of orders of works done previously given by the customers, of similar work(s) done previously, containing component-wise cost of items/services of the systems provided like projectors, fish eye lens, computer hardware components, software applications, audio, lighting, shows and associated services. If customer work order does not have component-wise cost break-up, then bidder shall prepare component-wise/item-wise cost breakup of all the components of the systems provided, like projectors, fish eye lens, computer hardware components in detail, all software applications, audio system components, lighting, title wise shows and associated services provided along with names, designations, email id's and contact details of such customers.</p> <p>bidders shall also upload satisfactory work completion certificates clearly indicating the value of the work done, issued by the client, of the similar work(s) completed previously (from the list of previously done work(s) uploaded).</p> <p>bidders shall also upload in technical bid, certificates issued by customers regarding providing satisfactory after sales maintenance services to these customers (whose details are uploaded as per above clauses) during the warranty period, the period of services should be clearly mentioned in the certificates.</p> <p>(Submit above details with supporting documents as per format appended at ANNEXURE-A).</p> <p>Upload copies of separate authorization certificates issued by OEMs of different equipment like digital projectors, computer hardware, software applications, extenders, power supplies, tab etc in the prescribed format appended at ANNEXURE-B of this document & all other details.</p>		
	<p>As per clause:1 (C) of “pre-qualification / eligibility conditions for bidders”] Upload audited balance sheets, CA certificate with CA’s Registration number & Seal as per ANNEXURE- C & all other details as per clause highlighted clause above.</p>		
8 9	<p>As per clause:1 (D) of “pre-qualification / eligibility conditions for bidders”] Upload an undertaking in this regard in the prescribed format appended at ANNEXURE D of this document. & all other details as per clause highlighted clause above.</p>	Yes/No	
10	<p>As per clause:1 (E) of “pre-qualification / eligibility conditions for bidders”] upload list of its trained staff as per their technical skill related to installation/repair/maintenance of the equipment/material and software of the similar work(s). Bidder should enclose the CV’s (with photos) of following staff who will work in this project:</p> <ol style="list-style-type: none"> 5) Project Manager 6) System Integration Expert 7) Project Engineer 8) AV engineer <p>Apart from this, bidder shall also enclose CV of the voice artists & all other details as per clause highlighted clause above.</p>	Yes/No	
11	<p>As per clause:1 (F) of “pre-qualification / eligibility conditions for bidders”] upload list of OEM’s service/repair centers (with addresses, contacts in India) of the components of similar work(s) (like projectors, audio, computer systems, software, lighting etc.) offered in this tender & all other details as per clause highlighted clause above.</p>	Yes/No	

12	As per clause:2 of “pre-qualification / eligibility conditions for OEM”] Copy of certificate from the OEM to be uploaded.	Yes/No	
13	As per clause:3.4 (a) & (b) of “Instructions to Bidders”] upload copies of authorization letter and power of attorney as per the format set forth in ANNEXURE-E & all other details as per clause highlighted clause.	(Yes/No)	
14	As per clause:3.14 (a) (vii) of “Bid Evaluation”] detailed technical note uploaded or not ?	(Yes/No)	
15	As per clause:3.16 (a) “Delivery & Time of Completion”] Document related to timeline for execution of the entire work from the date of placement of order indicating therein parallel activities and critical path to establish completion of the entire work within the stipulated time schedule need to be uploaded & all other details as per clause highlighted clause.	(Yes/No)	
16	[As per clause:3.18 (e) of [“Defect liability/onsite comprehensive warranty period”]: List specific tools, tackles, consumables, spares, software applications etc. to be provided by supplier to KCMP required for periodic basic maintenance & upkeep of the system during warranty period and beyond & all other details as per clause highlighted clause.	(Yes/No)	
17	[As per clause:3.18 (i) of [“Defect liability/onsite comprehensive warranty period”]: mention Telephonic and email support number/numbers & all other details as per clause highlighted clause.	(Yes/No)	
18	[As per Clause 4.1 (a) & 4.1 (b) of “projectors” under “Required minimum technical specifications of 2d digital immersive planetarium projection system”]: Bidder to upload detailed technical note and drawing to explain how pixels are counted and how the resolution is achieved using the projector being offered in the bid. Upload details related to projector with published catalogue/datasheet of OEM of the projectors and other details like make, model, specifications and Date of Manufacture of projectors etc & all other details as per clause highlighted clause.	Yes/No	
19	As per Clause 4.2 (a) of “Auto Blending and Geometry Correction (BG) Unit ” under “Required minimum technical specifications of 2d digital immersive planetarium projection system”]: Upload details of components being offered for “Auto Blending and Geometry Correction (BG) unit” and associated equipments with complete specifications of components such as DSLR cameras, calibration and interface software/hardware etc. & all other details as per clause highlighted clause.	Yes/No	
20	[As per Clause 4.3 & 4.4 of “computer hardware & User interface “under “Required minimum technical specifications of 2d digital immersive planetarium projection system” & clause no. 5.6 under “Scope of work”] upload detailed specifications of all the offered computer hardware components like motherboard, graphic card, processor, O.S, RAM, HDD, tablet-pc with networking accessories etc. and software applications to be provided for calibration like brand name, make year, capacity etc.	(Yes/No)	

21	<p>[As per Clause 4.5 of "Software" under "Required minimum technical specifications of 2d digital immersive planetarium projection system"]</p> <p>: Bidder to list features of Sky simulation software, full dome player, calibration software etc.</p>	(Yes/No)	

22	[As per Clause 4.6 of “LED Strip lighting” under “Required minimum technical specifications of 2d digital immersive planetarium projection system”]: upload detailed specification of lighting and associated components.	(Yes/No)	
23	[As per Clause 4.7 of “Surround Sound System” under “Required minimum technical specifications of 2d digital immersive planetarium projection system” as per clause 5.3(c)]: give details of the changes required in the existing audio system or any upgradations/modifications with complete specifications etc.	(Yes/No)	
24	[As per Clause 4.9 of “Integration of existing 15 KVA Online UPS, electrical distribution panels etc.” under “Required minimum technical specifications of 2d digital immersive planetarium projection system” & Clause No. 5.4 under “Scope of Work”]: bidders are required to mention changes/upgradations required in the existing electrical, Air conditioning setup and any civil works.	(Yes/No)	
25	Submit detailed technical specifications of equipments and software applications to be provided as per listed below: a) As per clause 5.1(f) under “Scope of Work” give details like model, date of manufacture of the projectors being offered in bid, its detailed specifications, accessories, mounting structure, detailed technical note and drawings to explain how pixels are counted and how the resolution is achieved etc. b) Fish Eye Lens detailed specifications related to its optics, Make, Model etc. c) Edge blending and geometric correction software and hardware specifications. d) Image Generator Server/user interface computer/tablet hardware and installed different software application specifications. e) As per clause 5.1(o): please upload Networking and data cabling scheme. f) 1 set of: Suggested training scheme, topics to be covered for staff training as per clause 5.5 under “Scope of work”. g) As per clause 5.1 (g) & 5.1 (m) under “Scope of Work”: upload complete functional drawings related to installation, wirings, connections and operator console & projector’s location in the dome. h) As per clause 5.1 (j) under “Scope of Work” and as per Clause 4.1 (5) of “Projectors” under “Minimum Technical Specifications of Projection system”: Please upload detailed technical note and drawing to show how bidder will achieve the required display resolution on dome after geometric correction (as per the native resolution of the projector offered), how pixels are counted.	(Yes/No)	
26	“Scope of work” Clause 5.7 (a) : Upload details of 2D shows available for exhibition for free in the ANNEXURE-F1 appended with this tender document.	Yes/No	
27	“Scope of work” Clause 5.7 (f): Shows: upload an undertaking that all the shows offered in this tender are free for exhibition at KCMP for at least a period of 10 years starting from the date of handover of the shows to KCMP. Bidder should also undertake that in case of any copyright claim, legal notice and/or litigations, supplier shall be solely responsible to attend the same and supplier will reply to such notices/attend legal proceedings of such notices/litigations and/or pay compensations/penalties imposed as a result of court/statutory	Yes/No	

	authority's orders initiated against DS&D/HSCSI&T.		
28	<p><u>"Scope of work" Clause 5.8 (d) :</u> Bidders to upload copies of documents like past work orders, performance/experience certificates issued by the customers related to cleaning of similar planetarium dome screens. Give details of step-by-step cleaning procedure to be carried out along with specifications of the cleaning materials to be used. time period for completion of work of dome screen cleaning etc.</p>	Yes/No	

Declaration by the bidder:

I / We hereby declare that the above statements are true. I / We also declare that I / we shall abide by the decision of Department of Supplies and Disposals, Haryana regarding selection of eligible bidder.

Dated :

Official Seal & Signature of the Bidder/Constituted Attorney

ANNEXURE-H

SAMPLE FINANCIAL BID FORMAT (Table-1)

Sr. No.	Item/Services (with 3 years of onsite comprehensive purchase warranty/defect liability period)	Qty	Basic Price in INR	Other charges like transportation, freight, packing, handling, Custom duty charges + Custom clearing agent fee with applicable taxes (please mention applicable taxes separately) <i>(In INR)</i>	GST @..	<i>Total price including taxes FOR KCMP, Kurukshetra (In INR)</i>
1	Price for 2d_4K (UHD) Projectors (including cabling/networking/connectors and with accessories)	02 or more <i>(bidder to please fill here quantity to be provided)</i>				
2	Price for professional Customized Fish Eye Lenses	02 or more <i>(bidder to please fill here quantity to be provided)</i>				
3	Price for Computer system(s) for graphic handling and operator console with pre-loaded operating system, software utilities, graphic card, 5.1 Audio card and other system software etc.	01 or more <i>(bidder to please fill here quantity to be provided)</i>				

4	Price for Full dome show player	Single user license (with perpetual license)				
5	Price of Hardware and Software for Automatic Calibration and alignment system					
6	Service Charges for Supply, Installation, Testing, Commissioning of the whole system which includes connecting and configuring, synchronizing projectors, focusing fish eye lenses, computer systems, software applications, connecting existing audio system, for calibration and alignment etc.					
7	Rendering of Existing two shows "Oasis in Space and Astronaut" to run as per resolution in 2D_4K (UHD) system. Both shows in Hindi as well as English languages.					

8	Staff Training	01				
9	Charges for dubbing of 10 free 2d full dome shows in Hindi language from artist approved by DS&D/HSCSIT	10				
10	Charges for one additional pre-configured Master Computer CPU only					
11	Charges for one additional similar pre-configured projector with accessories					
12	Charges for tablet-pc and associated components to be used for user interface of operator.					
13	Dome cleaning, replacement of insulation silica wool sheets with acoustic poly-synth material etc.	12 meter diameter				
14	Charges for any modifications in existing infrastructure like electrical/civil works/AC system modification etc.					
15	Charges for connecting existing 5.1					

	audio system, additions/modifications in the existing 5.1 Audio system (if any please mention)					
16	Charges for LED strip lighting					
17	Onsite Comprehensive AMC of the complete system along with additional computer hardware (after completion of 3 years of purchase warranty period)	1 st year				
		2 nd year				
		3 rd year				
		4 th year				

**SAMPLE FINANCIAL BID FORMAT (Table -2):
For 2D shows**

Sr No.	Show title (As per details given in the technical bid)	Duration	Basic service charges for modifications and dubbing of show in Hindi language (In INR)	Taxes applicable (In INR)	Total price including taxes. (In INR)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

(Add more rows if required)

Table -3
BUY-BACK OF EXISTING EQUIPMENTS
(As per clause no. 5.11 of Scope of Work)

Sr.	Items	Give amount in INR
1	Please quote amount for buy-back of existing projection system equipment installed at KCMP i.e Spitz's Scidome digital system and 1024 opto-mechanical projection systems along with accessories like fish eye lens etc.	