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## MEMORANDUM OF UNDERSTANDING

BETWEEN

**BIHAR STATE DISASTER MANAGEMENT AUTHORITY,  
PATNA**

&

**PATNA UNIVERCITY, PATNA**

*This Memorandum of Understanding made and effective as on  
18<sup>th</sup> day of February, 2019.*

## MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (hereinafter "MoU") made and effective as on this 18<sup>th</sup> day of February, 2019.

### BETWEEN

**Bihar State Disaster Management Authority**, (hereafter referred to as **BSDMA**), a statutory body, created under THE DISASTER MANAGEMENT ACT, 2005 of Government of India having its office at 2<sup>nd</sup> floor, Pant Bhawan, Bailey Road, Patna- 800001, India.

### AND

**Patna University**, a university established in Patna by the state government under an act passed by the Govt. of Bihar named as the P.U. Act 1976 as amended upto date. (Individually referred to as the "Party" and collectively as "Parties", as per context)

**Whereas BSDMA** has been mandated under the DISASTER MANAGEMENT ACT, 2005, section 14(i) of Government of India, to provide effective management of disasters and matters connected to or incidental therewith. It is the highest authority in Bihar for disaster risk management in its jurisdiction. It functions under the Chairmanship of the state Chief Minister and executive leadership of its Vice Chairman with a vision of reducing disaster risk in the state of Bihar through policy formulation/making, coordination, research and development, mock drill and road shows, training and capacity building etc.

**Whereas Patna University**, a state owned university of Bihar, having its office at Ashok Rajpath was established in 1917. The Department of Geology, Patna Science College, Patna will act as the second party on the behalf of Patna University in relation to all matters including research, publication, administration and any other function which will be considered necessary for the functioning of the proposed Bihar Seismic Telemetry Network Centre (BSTNC)/Bihar Seismic Telemetry Network (BSTN).

**Whereas Bihar Seismic Telemetry Network Centre (BSTNC)** will be established within the campus of Patna Science College, a constituent unit of Patna University

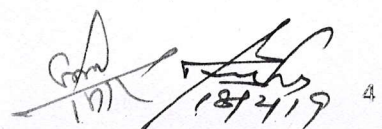
  
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Conference room, Committee room, Media room and garage for vehicles etc. The BSTNC building will be constructed through appointed agency by BSDMA. However, the ownership of the land and building will remain with Patna University.

The BSTNC will be a fully computerized and automatic system for data receiving from field stations, scrutiny of data, and data analysis and product dissemination to designated agencies. It will also consist of Database management system. It will function on 24X7 basis, where scientific officers and staff would work in shifts.

- 1.4 BSDMA will appoint, in consultation with the Governing Council of BSTNC/BSTN, the Director, Senior Scientists and other staff for smooth functioning of BSTNC/BSTN. Government has already approved various posts under BSTNC. The salary and other emolument of staff will be paid by BSDMA.
- 1.5 BSDMA will purchase equipment and other accessories necessary for functioning of BSTN/BSTNC. The procurement will be made as per procurement policy of Government of Bihar. Expert institutions as, National Centre for Seismology, Ministry of Earth Science and Government of India will be consulted in finalizing specification and purchasing of equipment and accessories.
- 1.6 BSDMA will promote research and development on Earthquake disaster mitigation and management at BSTNC in association with Department of Geology and other related departments of Patna University, Patna.
- 1.7 The data captured at BSTNC will be used by BSDMA and Patna University as and when required for disaster resilient/ mitigation measures/research purposes.
- 1.8 BSDMA shall undertake the general insurance of the proposed BSTNC, which will cover for theft and fire incidents of BSTNC. The premium for General Insurance of BSTNC would be borne by BSDMA.
- 1.9 Against the basic services like power, water, drainage and other services required for smooth functioning of BSTNC office provided by Patna University, a fixed amount (not exceeding to one lakh) estimated by the

  
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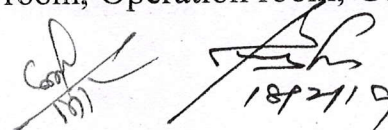
with an objective to acquire continuous real time seismic information from Bihar Seismic Telemetry Network (BSTN) consisting of 10 unmanned field stations spread over the State. The continuous data acquired at BSTNC will be used for auto location on occurrence of earthquake, determination of epicentral parameter & its automatic dissemination and generation of audible alarm within a few minutes. The BSTNC would thus be operational on 24 x7 basis.

Establishment of **BSTNC/Bihar Seismic Telemetry Network (BSTN)** under BSDMA was approved by the Cabinet and notified vide notification संचिका संख्या - 10/ विविध /आ०प्र०प्रा० -२२/२०१३/१५५६/आ०प्र० dated 29.04.2015 (Annexure-1). As per notification, BSTNC will be established in the campus of Patna Science College, Patna and Head of the Department of Geology will be the in charge of the instruments.

**NOW THEREFORE**, to execute the decisions of Cabinet and subsequently notification dated 29.04 2015 (Annexure -1), the related parties hereby agree to sign this Memorandum of Understanding (MoU) and have reached the following understanding:

**1.0 RESPONSIBILITIES OF BIHAR STATE DISASTER MANAGEMENT AUTHORITY (BSDMA):**

- 1.1 BSDMA shall be responsible for providing necessary facilities for the setting up of BSTNC of BSTN proposed to be set up at Patna Science College.
- 1.2 Department of Disaster Management, Government of Bihar and BSDMA, will promote overall development, maintenance and functioning of BSTNC /Bihar Seismic Telemetry Network in the state of Bihar.
- 1.3 BSDMA would construct and establish (with selected agency) ten field stations (located in ten seismological sensitive districts) and BSTNC at Patna Science College (Patna University, Patna). The BSTNC will be set up in an earthquake resistant building, built on RCC frame. The upper terrace of the building would be used for VSAT antenna. The BSTNC will be fully air conditioned in which there would be Duty Officers room, Officer- in-charge room (Director), one room for join Director, Scientists chambers, Administrative Officer Office, Maintenance room, Store room, Server room, Operation room, Generator shed,

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University will be paid by BSDMA in advance on submission of demand. Subsequently on receipt of expenditure statement duly verified by the Director, BSTNC/BSTN next instalment will be released.

1.10 Any other expenses required for maintenance and functioning of BSTNC of BSTN will be borne by BSDMA.

1.11 Operational cost such as hiring of bandwidth for the operation of VST for the transmission and reception of data will be borne by BSDMA.

1.12 Head of the Department of Post Graduate Department of Geology, Patna University and Department of Geology, Patna Science College, shall have full accessibility of BSTNC building and data generated through BSTN for research, except data, if any, declared sensitive by the Government of India/Bihar Government. Teachers/Researchers of the Department of Geology and Geography will also get accessibility after the recommendation of the Head, Post-graduate of Geology, Patna University.

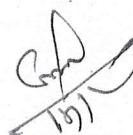
1.13 Security of BSTNC will be the responsibility of BSDMA.

## **2.0 RESPONSIBILITIES OF PATNA UNIVERSITY PATNA:**

2.1 Patna University shall nominate a senior faculty of Department of Geology, P.U. in consultation with the Head of the Department of Geology, P.U. for serving as the Joint Director of BSTNC. The duty and responsibility of the Joint Director will be fixed in consultation with the Vice Chancellor and BSDMA.

2.2 Patna University, Patna shall provide space in Patna Science College campus and sign the layout plan for construction and setting up of the Bihar Seismic Telemetry Network Centre (BSTNC). The space shall be identified in consultation with BSDMA.

2.3 Patna University, Patna through the Principal, Patna Science College, Patna shall provide necessary space for temporary office of BSTNC of BSTN till the complete BSTNC building is constructed on the proposed site.

  
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2.4 Patna University, Patna will provide basic services like power, water, drainage and other services required for smooth functioning of BSTNC office. The charges of the above mentioned basic services will be met by BSDMA as per clause 1.9.

### **3.0 JOINT RESPONSIBILITIES OF BSDMA AND PATNA UNIVERSITY:**

3.1 As per clause 1.1, BSDMA shall be responsible for providing necessary facilities for the setting up of BSTNC of BSTN proposed to be set up at Patna Science College. The work of BSTNC of BSTN will be executed under the joint supervision of BSDMA and Patna University through the Joint Director and the Head, Department of Geology, Patna University & the Head, Department of Geology, Patna Science College, Patna.

3.2 As per clause 1.2, Department of Disaster Management, Government of Bihar and BSDMA, will promote overall development, maintenance and functioning of BSTNC/Bihar Seismic Telemetry Network in the state of Bihar. The functioning of BSTNC at Patna Science College campus will be jointly developed and maintained by BSDMA and Patna University. This centre will ultimately be upgraded as a Multi-Disciplinary Seismic Research Centre namely as Advance Centre for Seismological Studies with the collective efforts of BSDMA and the Department of Geology, Patna University. BSDMA is expected to present this proposal before the annual meeting of the BSDMA. A preliminary proposal is attached subject to modification in light of the requirement of both BSDMA and the Department of Geology.

### **4.0 ACADEMIC ROLE OF BSTN/BSTNC:**

4.1 Faculties of the Post Graduate Geology Department of the Patna University and Patna Science College would have access to the data generated by BSTN for research project and innovation in field of Seismology, Geo-hazards, and other related subjects, supporting the government and society in general for Earthquake disaster mitigation and management. The faculties of the aforesaid departments will utilise the said data for research studies and innovation in the field of Seismology. Based on the analysis of data, faculties would be free to publish new findings and innovations and advise BSDMA for future action plan on Earthquake disaster mitigation and management.

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4.2 The BSTNC would encourage undergraduate and post-graduate students, Ph.D. scholars and interns in Seismology, Geo hazard, and other related subjects, to undergo training through hands-on exposure and involve them in projects, studies and consultation. The post-graduate students, Ph.D students and faculty members may carry out research work/ projects at BSTN/BSTNC as part of in-house capacity building and human resource development process of the Patna Science College & Patna University.

#### 5.0 OPERATIONAL MODALITIES:

5.1 There shall be a Governing Council for overseeing the functioning of BSTNC /BSTN. Its members shall be:

Composition is finally proposed as follows:

- |  |                  |
|--|------------------|
| 1. Vice Chairman/Member, BSDMA   | Chairman         |
| 2. Vice Chancellor, Patna University   | Co-Chairman      |
| 3. Dean Faculty of Science, Patna University   | Member           |
| 4. Principal, Patna Science College  | Member           |
| 5. Head, Department of Geology, Patna University   | Member           |
| 6. Head Department of Geology, Patna Science College   | Member           |
| 7. Representative of Department of Disaster Management<br>(Not less than Joint Secretary)    | Member           |
| 8. Representative of Department of Science and<br>Technology (Not less than Joint Secretary) | Member           |
| 9. Head, Geological Survey of India, Patna   | Member           |
| 10. Senior Faculty, (related to earthquake) nominated by<br>Director, IIT, Patna             | Member           |
| 11. Senior Faculty (related to earthquake), nominated by<br>Director, NIT, Patna             | Member           |
| 12. Director, BSTN, BSDMA  | Member/Secretary |

  
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### Mandate and Terms of Reference of the Council

- (i) The overall administrative and scientific work of the proposed BSTN will be governed by a Governing Council.
- (ii) The council will also assess and review the functioning of BSTNC /BSTN, development and maintenance of BSTNC and any other matter which may be useful and required for the smooth functioning of BSTNC.
- (iii) The council will also act as Project Advisory Committee (PAC) of BSDMA related to seismology research and earthquake mitigation related projects.
- (iv) Council shall invite experts in the field.
- (v) Meeting of the Governing council/Advisory Committee shall be held at least once every quarter to review the progress of the CRS/BSTN.

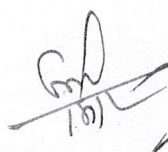
### **6.0 IN-CHARGE OF BSTNC BUILDING:**

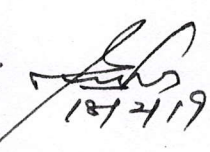
Based on the approved layout plan BSDMA has designed a plan (area of 90ft × 70ft) for BSTNC building which is attached at Annexure - 2. The CRS building will be in the charge of Principal, Patna Science College, Patna University. This building is G+2storey. One floor will be added once the proposal of National Seismic Research Centre is approved by the State Government.

### **7.0 EFFECTIVE DATE, DURATION, TERMINATION AND MODIFICATION OF MoU:**

This MoU shall be effective for a period of 10 years from the date of its approval by competent authorities at both ends.

- a) Termination of the collaboration will be decided by mutual consent. However, termination of the MoU will not in any manner affect the interests of the students/faculty/staffs of both the parties who have been entrusted to pursue a programme / project under the MoU.
- b) Any clause or article of the MoU may be modified or amended by mutual agreement of both parties.

  
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## 8.0 CONFIDENTIALITY:


Both Parties shall bind their respective personnel who come into possession or knowledge of any confidential information not to disclose the same to third parties without written approval or use such confidential information for any use other than intended under this agreement. In case of the violation of confidentiality, the Governing Council will determine the amount of punishment and that will be binding on both parties.

## 9.0 AMENDMENTS:


Any amendment and/or addenda to the MoU shall be in writing and signed by the parties hereto and shall only after such execution be deemed to form part of the MOU and have the effect of modifying the MoU to the extent required by such amendment or addenda.

## 10.0 RESOLUTION OF DISPUTES:

The dispute or difference whatsoever arises between parties in relation to or in connection with this MoU; both the parties shall resolve the dispute/difference amicably between themselves. In case dispute could not be resolved amicably, Vice Chairman, BSDMA in consultation with Vice Chancellor, Patna University shall appoint an authority for conciliation and arbitration, which will be acceptable to both the parties.

  
18/02/2019  
Register

Patna University, Patna

  
Secretary

Bihar State Disaster Management Authority,  
Department of Disaster Management  
Govt. of Bihar, Patna



