

CALL FOR EXPRESSION OF INTEREST (EoI)

For submitting proposals to SETS, Chennai on “An indigenous artificial intelligence-based language translation system/software or development thereof (text-to-text and speech-to-text translations for regional Indian languages and foreign languages)”

1. Expression of Interest

The Society for Electronic Transactions and Security (SETS) invites interested parties to submit their proposals for “**An indigenous artificial intelligence-based language translation system/software or development thereof (text-to-text and speech-to-text translations for regional Indian languages and foreign languages)**”

2. About SETS

SETS was formed for performing advanced research in Information Security, particularly Cryptography. The organization is governed by an Apex Body with the PSA to Government of India (GoI) as the President, a Governing Council and an Advisory Board.

SETS has started its research and development following three basic tenets: ***Directed Basic Research***, which means long term research with set goals to meet National level needs; ***Translational Research*** for translating theoretical ideas into design of usable products and ***Coherent Synergy***, which addresses collaborating with like-minded organizations for achieving the goals.

3. Objective of the EoI

The purpose of this exercise is to identify competent entities in the nation with the capability to develop/deploy fully indigenous independent systems (hardware and/or software) to enable translation between various Indian and foreign languages. SETS wishes to support the Principal Scientific Advisor to the Government of India in the broad objective of promoting and easing the cross-pollination of scientific knowledge and literature between the various lingual sections of India, as well as make available the foreign counterparts of these to the Indian public as easily as possible.

Please note, this EoI is only an exploratory exercise to assess the state of art available in the nation and hence does not in any manner represent or guarantee an offer/contract/work-order/purchase-order from SETS.

4. Eligibility Criteria

Proposals are invited from all interested parties in India which include but are not limited to: -

- a) a company registered under Indian Companies Act 1956/2013;
- b) a partnership firm registered under The Partnership Act 1932/LLP Act, 2008
- c) a society registered under Societies Act, 1860 / State Act. Company
- d) DIPP registered startups
- e) MSMEs as per MSME Act 2006
- f) Other Interested Parties

5. Area of interest

- 5.1. A system/software (used interchangeably here onwards) which can identify and then translate one language into another in the following modes –
 - 5.1.1. Text to text (for direct translation of scientific and literary works)
 - 5.1.2. Language identification in speech, followed by
 - 5.1.3. Speech to text (for real-time/near real time captioning of scientific and literary talks, lectures, TV programs, etc.)
- 5.2. The system should mutually translate between a pair of any of the following languages: - English, Hindi, Bengali, Kannada, Malayalam, Punjabi, Sanskrit, Oriya, Nepali, Telugu, Marathi, Urdu, Kashmiri, Assamese, Dari, Maithili, Manipuri, Konkani, Bodo, Dogri, Sindhi, Tamil, Santhali, Russian, Spanish, Arabic, Uzbek, Japanese, German, French, Vietnamese, Mandarin, Korean, Javanese, Pashto, etc. Applicants should mention all languages they have or can develop such a system for.
- 5.3. The proposed system should either be fully developed or be in advanced stages of pilot deployment, demonstrating a reasonable accuracy for automated mutual translation across any of the 2 of the languages (other than English) mentioned in point 2, and/or translation to English. The applicant may be asked to demonstrate the system to the evaluation committee within 7 days of the intimation for the same. Structured and unstructured text and voice samples may be provided by SETS for the demonstration in-situ at the time of demonstration, in the language pairs being offered by the applicant.
- 5.4. System should be independent, self-sufficient, and should not depend on external inputs, at any intermediate or final stage. It should not leverage any existing open-source translator software/services (such as 'Google Translate') in any manner.
- 5.5. The system should broadly be scalable in terms of number of languages and should be re-trainable with better language datasets in the future.
- 5.6. The proposal by the applicant should have a component-wise technical description of the system explaining how it works. While not compulsory, the proposal can include a broad timeline and budget requirement per language for establishing the system for translating it to English or vice-versa.

6. Application Instructions

- 6.1. The EoI application should contain the following-
 - 6.1.1. Technical Proposal – this part should have the technical details of the system being offered by the applicant including the languages it is capable of translating, the technical description and specifications of the hardware required, etc. It should clearly state how the system offered meets the requirements mentioned in the above section 5. Please note the application should not divulge any proprietary information that is not currently in the public domain, or not protected under prevailing intellectual property rights. However, the applicant may be given a chance to demonstrate their technology, if the application is *prima facie* found suitable for the purposes at hand.
 - 6.1.2. Organization Details – this part should have a brief description about the background of the firm/entity and its current operations. It must include a copy of the Certificate of Registration / Incorporation of the firm/entity. In case of any other type of applicant, it must include a copy of a government issued document identifying the applicant entity (e.g. in case of an individual, a copy of the aadhar card).

7. Confidentiality

- 7.1. The applicant and/or their personnel shall not disclose any proprietary or confidential information relating to the services being offered, contract or SETS's business or operations, during or after this EoI process, without the prior written consent of SETS. The applicant and/or their personnel shall not undertake any public communication, press/media releases or social media relating to the services being offered, contract, or SETS's business or operations without the written consent of SETS. Information available on public domain is excluded. Any act contravening this clause will be considered as grounds for disqualification of the application.
- 7.2. Conversely, SETS will not disclose any proprietary information, such as presentations or correspondence of the applicant that is revealed/shared during the evaluation of the EoI applications.

8. General Instructions

- 8.1. The medium for submission of applications to this EoI is only via email to eo@setsindia.net before **5.00 PM of 5th November 2018**. The complete soft copy of the proposal should be in the form of a .pdf less than 10MB in size and attached with the email. The applicant must put the subject of the email containing their proposal as **“Proposal of language translation system EoI”**
- 8.2. SETS, Chennai may at its discretion extend this deadline or modify the scope for the submission of EoI by amending the EoI document, in which case all rights and obligations of SETS, Chennai and applicants previously subject to the deadline will thereafter be subjected to the deadline as extended.
- 8.3. To assist in the examination, evaluation and comparison of EoI applications, SETS, Chennai at its discretion can request the applicant to provide any clarification of its EoI. The request for clarification and the response shall be in writing. However, post submission of the EoI, clarification at the initiative of the applicant shall NOT be entertained. SETS, Chennai reserves the right to visit the facilities of the applicant, if required. The official (s) of SETS Chennai or nominated experts in the domain, may visit the applicant's offices/place for assessment of availability of requisite facilities at its place.
- 8.4. As this is an Expression of Interest, no technical or financial queries will be entertained during the EoI application period. Any procedural queries may be addressed to the following through e-mail:

Details of the contact person

Shri. S.K Iyer

Chief Administrative and Accounts Officer (CAAO)

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- 8.5. Canvassing in any form would disqualify the applicant.