Indian Language Toolkits

Breaking Language Barriers – Empowering Communication in Various Sectors through Multilingual AI

Oct-2025

About Bhashini

3 Billion+
Total Inferencing

450 +
Total Active Customers

100 +
Total Usecases

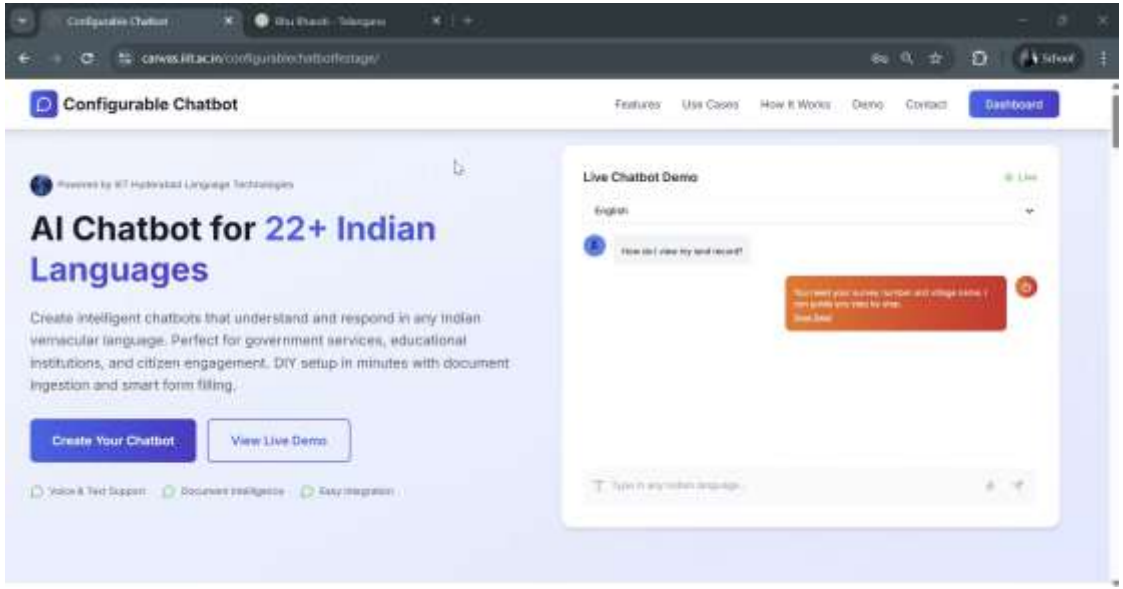
20 +
Languages Supported

20 +
Language Services

350 +
Total AI Models

https://bhashini.gov.in/

Bhashini Use Case Demo



Megathon Challenge : Innovative solutions Leveraging Bhashini Models

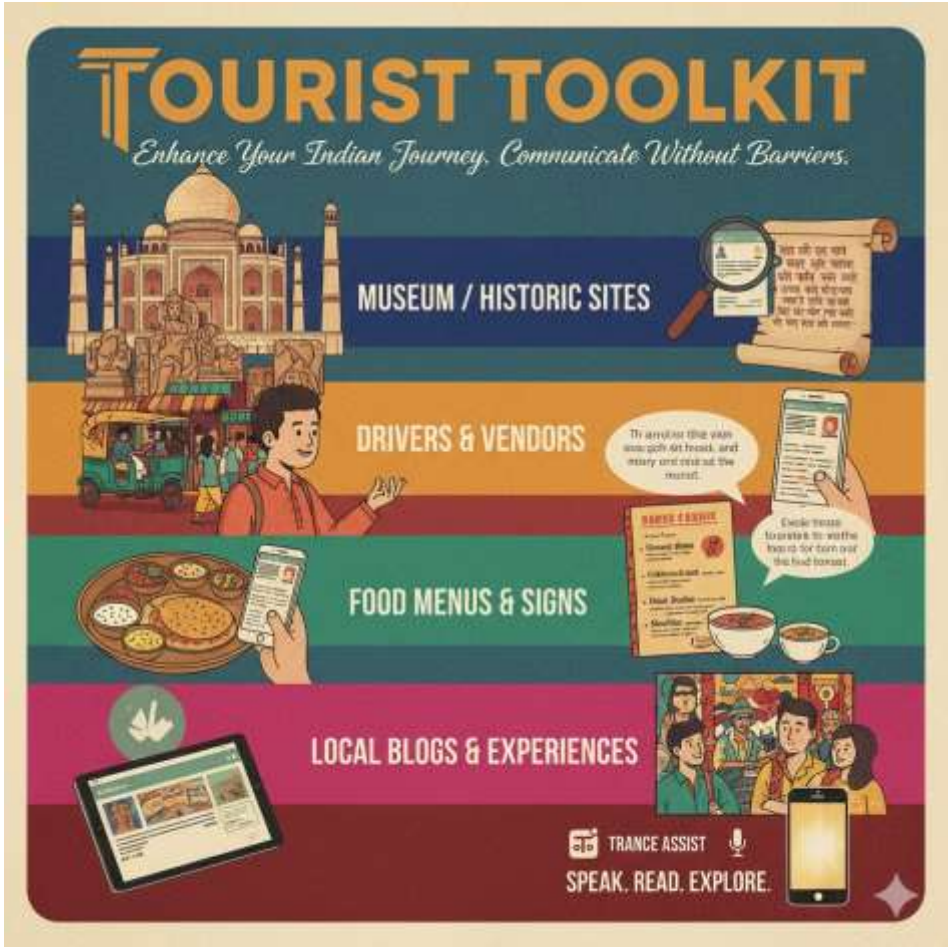
- Build an innovative application which leverages Bhashini models (ASR, MT,TTS, OCR)
- Enable seamless cross-language communication for the domains of interest.
- A Complete deployable *mobile / mobile-responsive web application should be built (Full stack application leveraging Bhashini models)*
- Deliverables : (i) source code (ii) demo video (iii) usage and installation documentation (iv) clear dependency specifications

Deployability, Usability, Seamless working of modules and optimal resource utilization

Domains and Scenarios Of Interest

- Domains – Pick anyone
  - Tourism
  - Healthcare
  - Workplace-Bank
  - Agriculture
- Scenarios – Address at least 4 scenarios
  - Scenarios provided are indicative.
  - You are free to imagine any relevant scenarios

Tourism : Enhance Travel Experience of a tourist(s) in alien land



Healthcare : Make The Experience Seamless at a hospital

Agriculture: Empower farmers and Agri professionals to access and disseminate information

Workplace-Bank : Enable Employees, Customers & Vendors work seamlessly

Every application should have the below aspects embedded into their solution

1. A real-time speech to speech component
2. A document, image, text, or website being translated to text or speech
3. A scanned document, image or video with text being translated
4. Query , extraction and summarization of content (text, doc , video, audio)
5. Application should be multi modal (cover at least two modalities) : text, video, audio, image
6. Must use the Bhashini languages APIs (ASR, MT, TTS and OCR)
7. Bringing together the selected scenarios into a seamless “usable” application is key. Should not look like bits and pieces joined together.
8. Efficient usage of resources, since language models are heavy and GPU intensive.

Bonus

1. < 10 sec delay for real-time speech to speech
2. A conversation style content translation i.e., for content to speech output
3. Model adaptation (Bhashini models available as open source maybe adapted as per the application requirements)

Judging will be based on how many of these constraints are met.

Key guidelines

- The scenarios provided are indicative to trigger ideation.
- In all scenarios assume there will be a English speaking person apart from people who can speak only local language. And there are people who speak mixed languages
- Data needed for the applications to be built or demoed is the responsibility of the participant (google it)
- Any additional models and APIs for technologies needed for their solution but not available on the Bhashini sandbox may also be leveraged e.g LLMs or pre-post processing models.
- You will not be held responsible for accuracy of the Bhashini models. How you put them to use and meet the scenario requirements is the key.
- GPUs & training datasets will not be provided for model training . You need to manage on your own

Use Bhashini models innovatively to address multilingual interactions — effectiveness of your solution is key

Evaluation Rubric

Innovation

Solutioning & Features
Usage of Models

Translational Modalities

Realtime Speech-to-Speech
Multi-modality Handling

Design & Architecture

Resource Utilization
Performance

Application Experience

UI cleanliness
Integrated functionality

Presentation

Documentation
Demonstration

Bonus

Realtime S2S <10sec
Conversational Speech
Model Adaptation

Anuvaadhub – The Bhashini Sandbox

https://anuvaadhub.com/

AnuvaadHub

- Playground of Indian Language Translational models
- Bhashini Consortium Models + Open Source : MT, TTS, ASR, OCR
- Provides Benchmarking tools and Leaderboards for models
- APIs to integrate into your applications
- Can play-around with the models using Tryout feature

- SignUp → LogIn → Access Models → Request API Access → Admin Approval → Use APIs

View Leaderboard. Try out various models. and pick the ones that suit best to your requirement

Moving Ahead…

1. *You will have continued access to AnuvaadHub*
    1. *You can build your applications using this playground*
    2. *Adapt and benchmark these models*

2. Engage with Bhashini Consortium to pursue your NLP journey