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**Title:** Preliminary Proposal to Encode Tani Lipi in the UCS

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**Action:** For consideration by UTC and WG2

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#### 1 Introduction

The purpose of this document is to bring attention to the Tani Lipi writing system. Very little information about this script is available. Additional research is required to determine the suitability of encoding the script in the Universal Character Set.

# 2 Background

Tani Lipi is an alphabetic script used for representing the Tani sub-family of Tibeto-Burman languages spoken in the state of Arunachal Pradesh, India. It is written from left to right. While letters of Tani Lipi resemble those of Bengali and Latin, it has no genetic relationship to any writing system. The available information suggests that 'Tani Lipi' is the formal name for the script.

The script was designed by Tony Koyu of Itanagar, Arunachal Pradesh. Koyu presented Tani Lipi at a seminar on script development for Tani languages sponsored by the North Eastern Institute of Science and Technology (NERIST) at Naharlagun, Arunachal Pradesh in November 2001.<sup>1</sup>

Further research is required to determine the state of usage of the script. In 2007, it was noted that Tani Lipi was not widely accepted by the target audience.<sup>2</sup> But, the script appears to be in current use. Material in the script is printed in the Sunday edition of the popular newspaper *Echo of Arunachal Pradesh*, and Koyu teaches the script as well.<sup>3</sup> It also appears that Tani Lipi has been studied and approved by linguists at Jawaharlal Nehru University, New Delhi and the Central Institute for Indian Languages, Mysore.<sup>4</sup>

## 3 Character Repertoire

Tani Lipi consists of 26 letters. A preliminary code chart and names list is given in Figure 1. Punctuation and digits are not attested. The proposed character names are derived from those given in the chart in Figure 2. All names are tentative. Character properties are as follows:

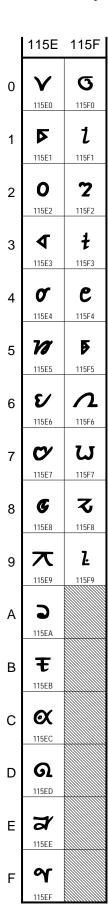
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115E0; TANI LIPI LETTER AA; Lo; 0; L;;;; N;;;;;
115E1; TANI LIPI LETTER BO; Lo; 0; L;;;; N;;;;;
115E2; TANI LIPI LETTER O; Lo; 0; L;;;; N;;;;;
115E3; TANI LIPI LETTER PO; Lo; 0; L;;;; N;;;;;
115E4; TANI LIPI LETTER KO; Lo; 0; L;;;; N;;;;
115E5; TANI LIPI LETTER DO; Lo; 0; L;;;; N;;;;
115E6; TANI LIPI LETTER RO; Lo; 0; L;;;; N;;;;
115E7; TANI LIPI LETTER LO; Lo; 0; L;;;; N;;;;
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<sup>&</sup>lt;sup>1</sup> Barbora and Post 2008: 268. <sup>2</sup> Abraham 2007: 194. <sup>3</sup> Barbora and Post 2008: 269. <sup>4</sup> The Telegraph, March 21, 2008.

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115E8; TANI LIPI LETTER GO; Lo; 0; L;;;;; N;;;;
115E9; TANI LIPI LETTER TO; Lo; 0; L; ; ; ; ; N; ; ; ;
115EA; TANI LIPI LETTER AE; Lo; 0; L;;;;; N;;;;
115EB; TANI LIPI LETTER SO; Lo; 0; L;;;;; N;;;;
115EC; TANI LIPI LETTER NGO; Lo; 0; L;;;;; N;;;;
115ED; TANI LIPI LETTER NYO; Lo; 0; L;;;;; N;;;;
115EE; TANI LIPI LETTER MO; Lo; 0; L;;;;; N;;;;
115EF; TANI LIPI LETTER NA; Lo; 0; L;;;;; N;;;;
115F0; TANI LIPI LETTER UH; Lo; 0; L;;;;; N;;;;
115F1; TANI LIPI LETTER EI; Lo; 0; L;;;;; N;;;;
115F2; TANI LIPI LETTER HO; Lo; 0; L;;;;; N;;;;
115F3; TANI LIPI LETTER II; Lo; 0; L;;;;; N;;;;;
115F4; TANI LIPI LETTER A; Lo; 0; L; ;; ;; N; ;; ;;
115F5; TANI LIPI LETTER VO; Lo; 0; L;;;;; N;;;;;
115F6; TANI LIPI LETTER JO; Lo; 0; L; ;; ;; N; ;; ;;
115F7; TANI LIPI LETTER CHO; Lo; 0; L;;;;; N;;;;
115F8; TANI LIPI LETTER YO; Lo; 0; L;;;;; N;;;;
115F9; TANI LIPI LETTER ONG; Lo; 0; L;;;;; N;;;;
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#### 4 References

- Abraham, P. T. 2007. "Arunachal Languages with Special Reference to Tani Languages". In *Tribal Studies: Emerging Frontiers of Knowledge*, ed. by Tamo Mibang and M. C. Behera, pp. 181–198. New Delhi: Mittal Publications.
- Barbora, Madhumita and Mark Post. 2008. "Quest for a Script". In *North East Indian Linguistics*, ed. by Stephen Morey and Mark Post, pp. 255–270. North East Indian Linguistics Society. New Delhi: Cambridge University Press.
- 'likenkoyu'. "TANI LIPI-A scientific script to preserve tribal languages of Arunachal Pradesh." http://likenkoyu.blogspot.com/
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| 115E0 | ٧                     | TANI LIPI LETTER AA  |
|-------|-----------------------|----------------------|
| 115E1 | ▶                     | TANI LIPI LETTER BO  |
| 115E2 | 0                     | TANI LIPI LETTER O   |
| 115E3 | ∢                     | TANI LIPI LETTER PO  |
| 115E4 | σ                     | TANI LIPI LETTER KO  |
| 115E5 | W                     | TANI LIPI LETTER DO  |
| 115E6 | ٤                     | TANI LIPI LETTER RO  |
| 115E7 | Ø                     | TANI LIPI LETTER LO  |
| 115E8 | G                     | TANI LIPI LETTER GO  |
| 115E9 | $\boldsymbol{\pi}$    | TANI LIPI LETTER TO  |
| 115EA | Э                     | TANI LIPI LETTER AE  |
| 115EB | Ŧ                     | TANI LIPI LETTER SO  |
| 115EC | $\boldsymbol{\alpha}$ | TANI LIPI LETTER NGO |
| 115ED | വ                     | TANI LIPI LETTER NYO |
| 115EE | ar                    | TANI LIPI LETTER MO  |
| 115EF | 4                     | TANI LIPI LETTER NA  |
| 115F0 | Q                     | TANI LIPI LETTER UH  |
| 115F1 | 1                     | TANI LIPI LETTER EI  |
| 115F2 | 7                     | TANI LIPI LETTER HO  |
| 115F3 | ŧ                     | TANI LIPI LETTER II  |
| 115F4 | e                     | TANI LIPI LETTER A   |
| 115F5 | ₽                     | TANI LIPI LETTER VO  |
| 115F6 | 1                     | TANI LIPI LETTER JO  |
| 115F7 | ຜ                     | TANI LIPI LETTER CHO |
| 115F8 | 飞                     | TANI LIPI LETTER YO  |
| 115F9 | Ł                     | TANI LIPI LETTER ONG |
|       |                       |                      |

Figure 1: Proposed code chart and nameslist for Tani Lipi

### HOW TO LEARN TANI LIPI?

### TANI LIPI ALPHABETS

| A              |   | <b>F</b><br>Bo  | 0                | <b>∢</b><br>Po | <b>♂</b><br>Ko  | Do .           |                 |  |
|----------------|---|-----------------|------------------|----------------|-----------------|----------------|-----------------|--|
| <b>E</b><br>R  |   | <b>©</b> Lo     | <b>G</b><br>Go   | To             | <b>a</b><br>Ae  | ₹<br>So        |                 |  |
| <b>©</b><br>Ng |   | <b>Q</b><br>Nyo | <b>a</b> ∕<br>Mo |                | <b>G</b><br>Uh  |                | <b>1</b><br>Ei  |  |
| <b>2</b><br>Ho | ŧ | <b>e</b><br>A   | <b>F</b><br>Vo   | Jo             | <b>ຜ</b><br>Cho | <b>飞</b><br>Yo | <b>L</b><br>Ong |  |

To learn Tani Lipi, one needs to memorize four sentence formulae.

1. ABO OPO KODO

2. ROLO GOTO ESO

3. NGONYO MONA UI

4. HOI EWO JOCHOYONG

Four sentence formulae come from the four rows of tanilipi alphabets. Now segregate the sound of the four sentence formulae. Word formation using tanilipi is very simple. For example ANI=V+V+1=VV1;  $BAT=\overline{V+V+1}=\overline{VV1}$ ;  $CROW=V+V+0+\overline{V+1}=VV0$ ;  $CROW=V+V+0+\overline{V+1}=VV0$ ; CROW=V+V+1=VV0; CROW=V+V+1=VV0; CROW=V+V+1=VV0; CROW=V+V+1=VV0; CROW=V+V+1=VV0; CROW=V+V+1=VV0; CROW=V+V+1=VV0; CROW=V+V+1=VV0; CROW=V+V+1=VV0; CROW=V+1=VV0; CROW=V+1=VV0; CROW=V+1=VV0; CROW=V+1=VV0; CROW=V+1=VV0; CROW=V+1=V0; CROW=V+1; CROW=V+1

Figure 2: The Tani Lipi script (from 'likenkoyu').