

Intro to NLP
Monsoon 2012
HA 1

To be done on A4 paper.

Due date 13th Aug 2012 (Submit in the class)

1.

1.1 Show all the forms of the verbal roots given below:

drink, fly, try

1.2 Factor out the common endings using finite state automata.

2.

2.1 Here are some forms of 'KA' (to eat) in Hindi, along with their features:

NO. | FEATURE STRUCTURE | WORD FORMS

1 | {TAM=future,gender=f,number=p,person=2} | {KAogI}

2 | {TAM=future,gender=f,number=p,person=2h}| {KAiegA/KAiyegA}

(NOTE: person=2h, here 'h' signifies honorific, TAM is tense,aspect,modality)

Write down some more forms of future tense for 'KA' together with their features.

For non-speakers of Hindi, pick the equivalent translation of “eat” in your mother tongue and perform the exercise,

2.2. Draw a FST and also list add delete rules for the above forms (paper and pencil).

3. Draw a FSA to recognize date expressions such as:

- January 20
- 20 January
- 20th of January
- 20th January
- 20th January 2002
- January 20, 2002
- etc.