

**NOTICE INVITING TENDERS FOR TEXT TRANSLATION OF NPTEL VIDEO TRANSCRIPTS TO
INDIAN LANGUAGES**

Dear Sir/Madam,

On behalf of NPTEL, Indian Institute of Technology Madras, offers are invited for the “**Text Translation of NPTEL Video Transcripts to Indian languages**” conforming to the specifications given in the next few pages.

Instructions to the Bidder

(i) **Preparation of Bids:** - The tenders should be submitted under two-bid system (i.e.) Technical bid and Financial bid.

(ii) **Delivery of the tender:** - The tender shall be sent to the below-mentioned address either by post or by courier so as to reach our office before the due date and time specified in our Schedule.

Proposals should reach the following address by **5 P.M. on April 4, 2016**

The NPTEL Coordinator

Web Studio,

IC & SR building, Third floor

IIT Madras, CHENNAI 600036

Tentative Date, Time and Venue of Pre-bid Meeting:

7 April 2016, 3 P.M. Conference Hall, Third floor, IC & SR building, IIT Madras

Tentative Date, Time and Venue of Opening of Technical bids:

14 April 2016, 3.00 P.M, Conference Hall, Third floor, IC & SR building, IIT Madras

Tentative Date, Time and Venue of Technical presentations by technically qualified vendors:

18 April 2016, 10.00 A.M, Conference Hall, Third floor, IC & SR building, IIT Madras

Tentative Date, Time and Venue of Opening of commercial bids:

22 April 2016, 3.00 P.M, Conference Hall, Third floor, IC & SR building, IIT Madras

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About NPTEL

The National Programme on Technology Enhanced Learning (NPTEL), a project funded by the Ministry of Human Resource Development (MHRD), was initiated by the seven Indian Institutes of Technology (Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and the Indian Institute of Science, Bangalore for creating video and web course contents in engineering and science. The project is coordinated by IIT Madras. (www.nptel.ac.in)

NPTEL has completed 12 years since inception. There are about 900+ web and video courses across 23 disciplines on the NPTEL web site. Our primary objectives are to facilitate the competitiveness of Indian industry in the global markets by improving the quality and reach of engineering education and make high quality learning material available to students of engineering institutions across the country, free of cost. Using the services of vendors, NPTEL has been providing accurately transcribed text files with video images of all NPTEL video lectures.

About Translation of Text Transcripts

Our aim now is to generate subtitles for the NPTEL videos in Indian languages.

We are looking at translating 40 NPTEL video courses, which will include all of the common first year undergraduate courses, and the rest will be the 3 or so most accessed courses in each engineering discipline. Translation of these courses need be carried out in 8 languages - **Hindi, Bengali, Telugu, Marathi, Tamil, Kannada, Gujarati, and Malayalam.**

Of the 40 video courses, 8 of the common first year undergraduate courses need to be translated in an additional 7 languages - **Assamese, Urdu, Manipuri, Oriya, Punjabi, Kashmiri, and Santali.**

Another 4 courses need be translated in the remaining 7 official languages - **Konkani, Nepali, Maithili, Sindhi, Sanskrit, Bodo, and Dogri.**

The process will involve:

- Manually translating text from English to the Indian language.
- Retaining technical terms in English itself
- Checking for technical accuracy by experts of the language.

These translated files will also be used to generate PDF files as well as subtitles for NPTEL video courses in Indian Languages. Hence we will need to generate 2 sets of translated files.

1. Line-by-line translation to be used to generate subtitle files
2. Translation per paragraph – to be used to generate PDF files

SCHEDULE

IMPORTANT CONDITIONS OF THE TENDER

1. **Last Date:** The last date for the submission of the tender is **April 4, 2016 5:00 p.m.** In the event of this day being declared as a holiday, the tenders can be submitted up to 3:00 p.m. on the following working day.
2. **Two-bid system:** The offers / bids should be submitted in two bids systems (i.e.) Technical bid and Financial bid. The Technical bid should consist of all technical details / specifications only. The Financial bid should indicate item-wise price for each item and it should contain all Commercial Terms and Conditions including Taxes, guarantee, payment terms, pricing terms etc. The Technical bid and Financial bid should be put in separate covers and sealed. Both the sealed covers should be put in a bigger cover. The limited tender for scope of work **“Text Translation of NPTEL Video Transcripts to Indian languages”** should be written on the left side of the outer cover and sealed.
3. **EMD:** - EMD should be at 2% (two percent) of the tender value quoted by the bidder. The EMD should be included in the Financial bid which will not be opened for Technical evaluation. Enclosing the EMD in the Technical bid will automatically disqualify the tenderer. EMD should be in the form of DD in favour of “The Registrar, Indian Institute of Technology Madras” and payable at Chennai. The tender without EMD would be considered as UNRESPONSIVE and REJECTED. Photo/FAX copies of the Demand Draft/Banker’s pay orders will not be accepted. No interest will be paid for the EMD and the EMD (Bid Security) will be refunded to the successful bidder on receipt of Performance Security. **The unsuccessful bidder EMD will be returned to them after opening the Technical Bid.**
 - (ii)The EMD (Bid Security) will be refunded to the Successful bidder on receipt of 5% Bank Guarantee.
 - (iii)The Bank Guarantee should be valid for the period of 12 months from the date of Completion of work.
4. **Performance Security:-** The successful bidder should submit Performance Security for an amount of 5% of the value of the contract/supply. The Performance Security may be furnished

in the form of an Account Payee DD, FD Receipt from the commercial bank, Bank Guarantee from any nationalized bank of India will be an acceptable. **Only after submission of Performance Security, Purchase Order/Work Order will be released / L.C will be opened.**

Performance Security in the form of Bank Guarantee:- In case the successful bidder wishes to submit Performance Security in the form of Bank Guarantee, the Bank Guarantee should be routed through the Beneficiary Bank to the end user bank. Otherwise, the Indian Agent of the foreign vendor has to submit a Bank Guarantee from a Nationalized Bank of India.

The Bank Guarantee should remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including the warranty obligations.

5. If an Indian agent is involved, the following documents must be enclosed:

Foreign principal's proforma invoice indicating the commission payable to the Indian Agent and nature of after-sales service to be rendered by the Indian Agent.

- i) Copy of the agency agreement with the foreign principal and the precise relationship between them and their mutual interest in the business.
- ii) The enlistment of the Indian agent with Director General of Supplies & Disposals under the Compulsory Registration Scheme of Ministry of Finance.

6. **Risk Purchase Clause:-** In the event of failure of submitting deliveries within the stipulated delivery schedule, the purchaser has all the right to purchase the item from other sources on the total risk of the supplier under risk purchase clause.
7. **Delivery Schedule:** - The tenderer should indicate clearly the time chart for completion of 25%, 50%, 75% and 100% of work, within stipulated time. In case there is any delay in the completion of the work, liquidated damages clause will be enforced or penalty for the delayed supply period will be levied.
8. **Payment:** - No Advance payment will be made. Installment payments after 25%, 50%, 75% and 100% of satisfactory completion of work will be made.
9. **Validity of offer:** - Tenderers shall agree to keep the tender open for sixty (60) days from the due date of submission thereof and not make any modifications in the stated terms and conditions.

10. **Late offer:** - The offers received after the due date and time will not be considered and the same will be returned unopened to the respective tenderers. The Institute shall not be responsible for the late receipt of Tender on account of Postal, Courier or any other delay.
11. **Acceptance and Rejection:** - I.I.T Madras has the right to accept the whole or any parts of the Tender, or portion of the quantity offered, or reject it in full, without assigning any reason.
12. **Opening of the Tender:** The bids will be opened by the Tender Committee duly constituted for this purpose, in the presence of such Tenderers or their authorized representatives, who choose to be present, at the appointed place, time and date.
13. **Disputes and Jurisdiction:** -
 - a. **Settlement of Disputes:** Any dispute, controversy or claim arising out of or in connection with this Tender including any question regarding its existence, validity, breach or termination, shall in the first instance be attempted to be resolved amicably by both the Parties. If attempts for such amicable resolution fails, or no decision is reached within 30 days, whichever is earlier, then such disputes shall be settled by arbitration in accordance with the Arbitration and Conciliation Act, 1996. Unless the Parties agree on a sole arbitrator, within 30 days from the receipt of a written request by one Party from the other Party to so agree, the arbitral panel shall comprise of three arbitrators. In that event, the supplier will nominate one arbitrator and the Project Coordinator of IITM shall nominate one arbitrator. The Dean IC&SR will nominate the Presiding Arbitrator of the arbitral tribunal. The arbitration proceedings shall be carried out in English language. The cost of arbitration and fees of the arbitrator(s) shall be shared equally by the Parties. The seat of arbitration shall be at IC&SR IIT Madras, Chennai.
 - b. Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Chennai in Tamil Nadu.
14. All Amendments, time extension, clarifications etc., will be uploaded on the website only and will not be published in newspapers. Bidders should regularly visit the IIT Madras website to keep themselves updated. No extension in the bid due date/ time shall be considered on account of delay in receipt of any document by mail.

15. **Acknowledgement:** - It is hereby acknowledged that the tenderer has gone through all the conditions mentioned above and agrees to abide by them.

SIGNATURE OF THE TENDERER ALONG WITH SEAL OF THE COMPANY WITH DATE

Annexure – 1: List of Indian languages for translation

40 video courses in the foll: languages

- Hindi
- Bengali
- Telugu
- Marathi
- Tamil
- Kannada
- Gujarati
- Malayalam

4 video courses in the foll: languages

- Konkani
- Nepali
- Maithili
- Sindhi
- Sanskrit
- Bodo
- Dogri

8 video courses in the foll: languages

- Assamese
- Urdu
- Manipuri
- Oriya
- Punjabi
- Kashmiri
- Santhali

Annexure – 2: DESCRIPTION OF WORK

Scope of work: Conversion of available e-contents of NPTEL into 15 Indian languages. See number of courses listed per language in Annexure-I. Purchase Orders will be released periodically based on the availability of NPTEL video courses.

Description of task:

- Text transcripts in English will be provided as input for this translation process.
- Line-by-line translation of the given transcript to be made. (Samples attached).
- Technical terms are to be retained in English language itself.
- The translated content to be typed using pre-approved uni-code font.
- The translated content to be proof-read before submission by language experts approved by our organization (You will be required to submit resumes of your language experts).

Deliverable:

1. Line-by-line translation of the given transcript (Sample given) for generating subtitle files
2. Para-by-para translation of the given transcript (Sample given) for generating PDF files

Source material:

Text transcripts in English will be provided by NPTEL as input for this translation process.

Delivery Schedule:

Approximately **400 lectures** in engineering / science subjects of one hour duration each to be processed within 6 months from the date of issue of P.O. , for each language for which the tender is awarded to a given vendor.

Quality Check

Quality Check of deliverable should be done at your end. NPTEL will also conduct one round of quality check. If the submitted work does not meet our standards, re-work to be done at your end.

Payment:

Installment payments will be made after 25%, 50%, 75% and 100% of satisfactory completion of work.

Apportion of work

In the event more than one vendor is found qualified, IIT Madras reserves the right to apportion the work based on the experience of the vendor and the quality of the sample provided. **For the purpose of awarding the contract, each language will be considered independently. Therefore, vendor must quote rates for each language independently.** To enable this, one sample translated file in all languages for which rates are quoted must be submitted along with the tender.

Details of past work:

Details of past work to be provided along with tender including:

- Links to sites where at least 50 hours of translated work in one or more languages are published, ideally of science content
- Time frame within which the work was completed

Samples for reference:

Please refer to samples provided in the next few pages.

To be submitted along with Tender - sample translated file in all languages for which rates are quoted must be submitted along with the tender.

Please provide line-by-line translation of the foll: transcript that has been extracted from Lec 5 of the video course Advanced Hydraulics by Prof. Dr. Suresh A. Kartha, Department of Civil Engineering, Indian Institute of Technology, Guwahati.

So, the first question, we asked you, we asked to determine the kinetic energy factor, and momentum correction factor for a triangular cross sectional channel, whose velocity at any point was given as half K into y to the power of half, where y is the depth from top of the surface. So, how do you solve this particular problem? I hope most of you have done that, but still for your benefit we will just briefly solve them, how to find this factors. You know that here, you need to assume, that the sides of the rectangular channel the sides of the rectangular channel they are sloping at a ratio 1 is to m , the slope of rectangular channel sides of the triangular channel, sorry triangular channel the side slopes are 1 is to m . How will you find the area, and subsequently the average velocity, area, average velocity subsequently α , β these are the things we need to find. One can easily find top width T , in this case, top width T in this case, will be equal to twice $m y \text{ naught}(y_0)$, area A , this will be equal to half into $2 m y \text{ naught}(y_0)$ into $y \text{ naught}(y_0)$, this is equal to $m y \text{ naught}(y_0)$ square. Average velocity, this was given as 1 by A integral $v \text{ d}A$.

This you can write it as 1 by $m y \text{ naught}(y_0)$ square integral half $K y$ to the power of half into $\text{d}A$, what is $\text{d}A$? Here you take any small section, small elementary section, of $\text{d}y$ height, and let that top width be b in this case the width of that elemental strip be b . So, you know in this case b will be equal to, if this elemental strip b act at depth y from the top, this will be equal to this will be equal to $2 m y \text{ naught}(y_0)$ minus y . Therefore, your $\text{d}A$ can be given as $b \text{ d}y$, or $2 m y \text{ naught}(y_0)$ minus y into $\text{d}y$, substitute that term here; $2 m y \text{ naught}(y_0)$ minus $y \text{ d}y$, this integral is between the limits 0 to $y \text{ naught}(y_0)$, so what will you get here.

<http://textofvideo.nptel.iitm.ac.in/video.php?courseId=105103021>

Annexure – 3: SAMPLE - English to Marathi – line-by-line

In the last lecture, we were solving goal programming problems using the graphical method
मागील व्याख्यानात आपण सोडवीतहोतो ध्येय प्रक्रियायोजना समस्या आलेख पद्धत वापरून

for those problems that had only two decision variables
त्यासमस्यांसाठी ज्यांना दोन निर्णायक चल (decision variables)

and the rest of the variables were the deviation variables.
आणि इतरचल (variables) विचलन चल (deviation variables) होते.

(slideबघावेळ००. ३०)

Today we will take an example
आज आपण एक उदाहरण घेऊया

that has more than two decision variables and more deviation variables
ज्यात आहेत दोन पेक्षा अधिक निर्णायक चल (decision variables) आणि अधिक विचलन चल (deviation variables)

and try to solve this using a simplex algorithm. The objectives are
आणि प्रयत्न करूया ते सोडवण्याचा एकपथी गणनविधी (simplex algorithm) वापरून. उद्दिष्ट आहेत

minimize η_1 plus η_2 plus ρ_3 and then ρ_4 and η_5 ,
कमीत कमी करणे η_1 अधिक η_2 अधिक ρ_3 आणि त्यानंतर ρ_4 आणि η_5

subject to these set of constraints
निर्बंधांच्या ह्या (constraints) संच्यावर अवलंबून

because, η_1 , η_2 and ρ_3 are the first part of the objective function.
कारण η_1 , η_2 आणि ρ_3 हे उद्दिष्टफलाचा (objective function) पहिला भाग आहेत.

The objective function has three parts.
उद्दिष्टफलाला तीन भाग आहेत.

The first part contains these three, which implies that these three constraints are the rigid constraints.
पहिल्या भागात आहेत हे तीन, जे हे सुचवते की हे तीन निर्बंध (constraints) आहेत कडक निर्बंध (constraints).

We start the simplex algorithm by considering this objective function and only the rigid constraints to begin with.
आपण सुरु करूया एकपथी गणनविधी (simplex algorithm) विचारात घेऊन हे उद्दिष्टफल (objective function) आणि केवळ कडक निर्बंध (constraints) सुरुवातीस.

can set up the simplex table like this.
आपण शकतो एकपथी (simplex) तक्ता अशा प्रकारे योजू शकतो .

(slide बघावेळ०१:२४)

This table will have $X_1, X_2, Y_1, Y_2, \eta_1, \eta_2, \eta_3, \rho_1, \rho_2, \rho_3$
ह्या तक्त्या मध्ये असतील $X_1, X_2, Y_1, Y_2, \eta_1, \eta_2, \eta_3, \rho_1, \rho_2, \rho_3,$

and a right hand side.
आणि एक उजव्या हाताची बाजू.

We can start the simplex table this way.
आपण एकपथी (simplex) तक्ता अशा प्रकारे सुरु करूशकू.

BASIC ELECTRONICS
Prof. T. S. Natarajan
Department of Physics
IIT MADRAS

ബേസിക് ഇലക്ട്രോണിക്സ്
പ്രൊഫ. ടി.എസ്. നാരായണൻ
ഡിപ്പാർട്ട്മെന്റ് ഓഫ് ഫിസിക്സ്
ഐഐടി മദ്രാസ്

Lecture - 2
Electronic Devices -1
Resistor, Ideal Source Voltage
& Capacitor

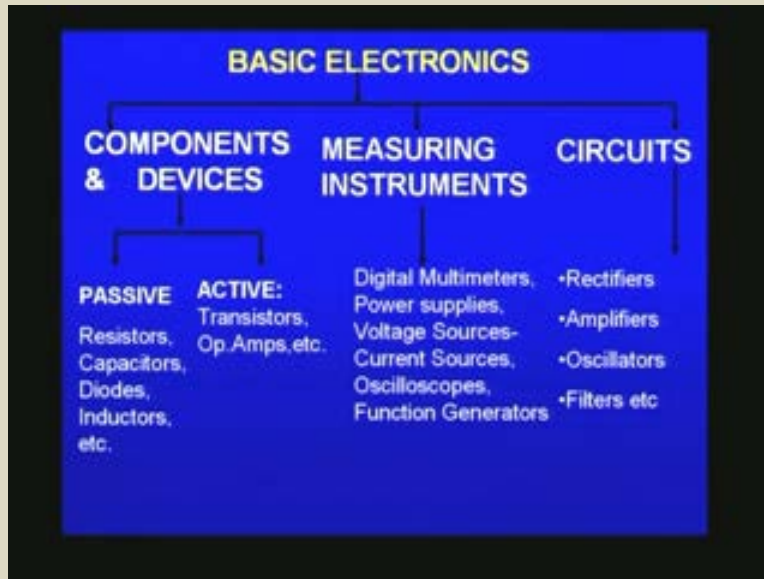
പ്രഭാഷണം - 2
ഇലക്ട്രോണിക് ഉപകരണങ്ങൾ -1
റെസിസ്റ്റർ (Resistor), യുക്തമായ ഉറവിട (ഐഡിയൽ) വോൾട്ടേജ് (Voltage)
& കപ്പാസിറ്റർ

In the last lecture, we saw the importance of learning about electronics, method of learning by doing, how it is very useful learning a subject like electronics and a brief history of electronics, about various stages like the vacuum tube, the transistor and integrated circuits. We also saw the plan of the topics to be learnt during this lecture, how to build circuits using breadboard and some ideas about use of digital multimeter and power supply which we would be making use of in doing different experiments in electronics. The plan is to read about three aspects in electronics basically: components and devices, the measuring instruments and different circuits. Under components and devices, the passive components like resistors, capacitors, active components like transistor and operational amplifiers, measuring instruments like digital multimeters, power supplies, current sources, oscilloscopes, etc. and circuits like rectifiers, amplifiers, oscillators, etc.

കഴിഞ്ഞ പ്രഭാഷണത്തിൽ, ഇലക്ട്രോണിക്സിനെ കുറിച്ച് പഠിക്കുന്നതിന്റെ പ്രാധാന്യം, ചെയ്തു പഠിക്കുന്ന രീതി, ഇലക്ട്രോണിക്സ് പോലുള്ള ഒരു വിഷയം പഠിക്കുന്നത് എന്തുകൊണ്ട് ഉപയോഗപ്രദമാണ്, കൂടാതെ ഇലക്ട്രോണിക്സിന്റെ

ഒരു ഹ്രസ്വചരിത്രം, വാക്വം ട്യൂബ് (vacuum tube), ട്രാൻസിസ്റ്റർ (transistor), ഇൻറഗ്രേറ്റഡ് സർക്യൂട്ടുകൾ (integrated circuits) പോലെയുള്ളവയുടെ വിവിധ ഘട്ടങ്ങളെ കുറിച്ച് എല്ലാം നമ്മൾ കണ്ടു. കൂടാതെ ഈ പ്രഭാഷണത്തിൽ പഠിക്കേണ്ടതായ വിഷയങ്ങളുടെ രൂപം, ബ്രെയ്ബോർഡ് ഉപയോഗിച്ച് എങ്ങനെ സർക്യൂട്ടുകൾ നിർമ്മിക്കണം കൂടാതെ ഇലക്ട്രോണിക്സിൽ പലതരം പരീക്ഷണങ്ങൾ ചെയ്യുന്നതിന് നമ്മൾ ഉപയോഗിക്കാൻ പോകുന്ന ഡിജിറ്റൽ മൾട്ടിമീറ്റർ (digital multimeter), പവർ സപ്ലൈ എന്നിവയുടെ ഉപയോഗത്തെ കുറിച്ചുള്ള ചില ആശയങ്ങളും നമ്മൾ കണ്ടു. അടിസ്ഥാനപരമായി ഇലക്ട്രോണിക്സിലുള്ള മൂന്ന് വശങ്ങളെ കുറിച്ചുള്ള വായനയാണ് ഉദ്ദേശിക്കുന്നത്: ഘടകങ്ങളും ഉപകരണങ്ങളും, അളക്കൽ ഉപകരണങ്ങൾ, വ്യത്യസ്ത സർക്യൂട്ടുകൾ. ഘടകങ്ങളുടെയും ഉപായങ്ങളുടെയും കീഴിൽ, റെസിസ്റ്ററുകൾ (resistors), കപ്പാസിറ്ററുകൾ (capacitors) പോലെയുള്ള പാസിവ് കമ്പോണന്റുകൾ (passive components), ട്രാൻസിസ്റ്റർ (transistor), ഓപ്പറേഷണൽ ആംപ്ലിഫയറുകൾ (operational amplifiers) പോലെയുള്ള സജീവ കമ്പോണന്റുകൾ (components), ഡിജിറ്റൽ മൾട്ടിമീറ്ററുകൾ (digital multimeters), പവർ സപ്ലൈകൾ (power supplies), കറന്റ് സോഴ്സുകൾ (current sources), ഓസിലോസ്കോപ്പുകൾ (oscilloscopes) മുതലായ മെഷറിംഗ് ഇൻസ്ട്രുമെന്റുകൾ (measuring instruments), കൂടാതെ റെക്ടീഫയറുകൾ (rectifiers), ആംപ്ലിഫയറുകൾ (amplifiers), ഓസിലേറ്ററുകൾ (oscillators) മുതലായ സർക്യൂട്ടുകളും (circuits).

(Refer Slide Time: 2:44)



Let us first start with resistors. What are resistors? They oppose the flow of electrons basically or in effect, the current.

നമുക്ക് ആദ്യം റെസിസ്റ്ററുകളിൽ (resistors) തുടങ്ങാം. റെസിസ്റ്ററുകൾ (resistors) എന്താണ്? അടിസ്ഥാനപരമായി അവ ഇലക്ട്രോണുകളുടെ ഒഴുക്കിനെ അല്ലെങ്കിൽ ഫലത്തിൽ കറന്റിനെ (current) പ്രതിരോധിക്കുന്നു.

Annexure – 5: Guidelines for Translation

1. As seen in the screen-shots shown in the next page, the translated content will ultimately be uploaded as subtitles for the videos. Hence it is crucial that the translation be submitted in line-by-line format.
2. Para-by-para translated work also to be submitted which will be uploaded as PDF
3. Technical terms are to be retained in English language itself.
4. The translated content to be typed using pre-approved uni-code font.
5. The translated content to be proof-read before submission by language experts approved by our organization.
6. You will be required to submit resumes of your language experts.
7. Rework should be done if the translated work does not conform to NPTEL standards.

Annexure – 6: Sample Screen-shots of translated text in different languages, uploaded as subtitles

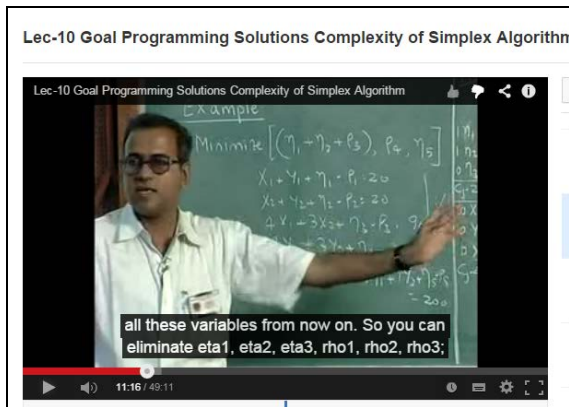
English



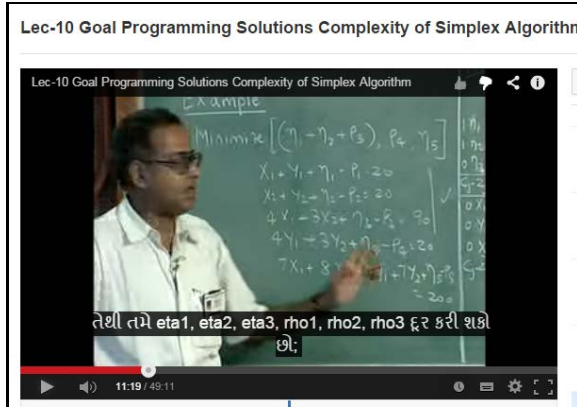
Tamil



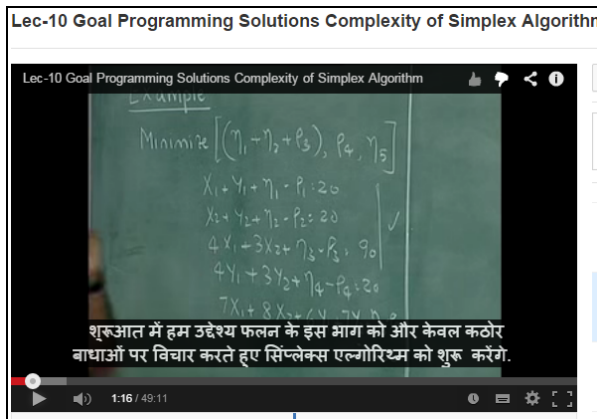
English



Gujarati



Hindi



Telugu

