# **BEST PRACTICES**

# **NPTEL-SWAYAM-MOOCS**

| Title of the Practice:          | NPTEL offers free open online courses along with certification in various engineering disciplines, sciences, humanities, management and research whichprovide relevant exposure to tools and technologies. This facilitates flexibility for the faculty to prioritize the time and work at one's own pace. In order to gain in-depth knowledge and mastery learning of various components of the curriculum, the faculty can opt for courses from the same or interdisciplinary courses. In the light of everchanging world of knowledge and technology unless faculty members update themselves they become out dated. Teacher as a facilitator should also guide the students in online learning programmes. The modular structure of these courses is learner friendly and enables participants to move smoothly along the spiral of learning. AICTE recognizes advanced level NPTEL courses as Faculty Development Programs for Engineering Colleges due to limited opportunities available for faculty to attend face-to-face or residential fulltime training programs.   |  |  |  |  |  |
|---------------------------------|---|--|--|--|--|--|
| The Context:                    |   |  |  |  |  |  |
| Objectives of<br>the Practice:  | <ul> <li>To enable faculty gain advanced technological and subject knowledge through video lectures prepared by IITs and IISc and IIMs</li> <li>To encourage faculty to learn to design value added courses on the lines of these courses.</li> <li>To capacitate faculty members to adorn the role of mentors for some NPTEL courses</li> <li>To facilitate integration of reading materials and videos to complement classroom teaching.</li> <li>To promote continuous professional development through self-learning and life-long learning</li> <li>To encourage faculty to review and translate courses offered by NPTEL.</li> <li>To impart life skills, develop the personality and communication skills.</li> <li>To enable the faculty to acquire teaching skills through effective pedagogic methodology.</li> <li>To enhance networking opportunities.</li> </ul>   |  |  |  |  |  |
| The Practice:                   | Aurora's Technological and Research Institute had setup NPTEL Local Chapter on June 30, 2017 with an objective to enable the faculty and students to obtain certificates through enhanced technological learning.Dr. K. Nagajyothi, Professor, Department of Chemistry started the Local chapter and participated in the SPOC workshop held at IIT-Madras on 15 <sup>th</sup> July 2017. Later Ms. D. Subahshini, Assoc. Professor, CSE took the charge. The faculty members and students were briefed about the NPTEL courses and motivated to enrol for thecourses. The faculty members had the choice to select the course of their own interest, either related to their course or in new domain. Many faculty members enrolled in various courses pertaining to Engineering, Technology, Science, Management, Humanities and inter-disciplinary. The subjects like computer programming and soft skills were opted by the faculty of different streams to upgrade their knowledge and evaluate themselves through weekly assignments. The faculty members utilised the video lectures and contents of NPTEL courses as an additional material for teaching the students. The digital library has been equipped with NPTEL online videos for the easy accessibility to the students and faculty through LAN. 20 faculty members appeared for the final NPTEL exam and few of them have written exams for two courses on the same day. |  |  |  |  |  |
| Obstacles<br>faced/Proble<br>ms | The regular course work of the college is conductedfrom June to November& December to April and the NPTEL courses are offered from July to October and January to April every year. Due to the coincidence in the course period it becomes hectic for the faculty   |  |  |  |  |  |
| encountered:                    | to cope up with both the regular and NPTEL course work. In spite of these   |  |  |  |  |  |

barriers faculty have achieved credit as the toppers with gold and elite certification.

Benefit or outcome of the Practice may be recorded (About 100 words)

The following faculty members have excelled in the NPTEL examinations for the course July 2018 - April 2019.

### Faculty members who have excelled in NPTEL exams held during 2018-2019

| S.n |                  |                 |               |      | Certificate  |
|-----|------------------|-----------------|---------------|------|--------------|
| 0   | Course Name      | Roll Number     | Name          | Dept | Туре         |
|     | Computer         |                 |               |      |              |
|     | Organization and |                 |               |      |              |
|     | Architecture: A  |                 |               |      |              |
|     | Pedagogical      | NPTEL19CS04S514 | TV            |      |              |
| 1   | Aspect           | 51289           | Ramanamma     | CSE  | Elite+Silver |
|     | Computer         |                 |               |      |              |
|     | Organization and |                 |               |      |              |
|     | Architecture: A  |                 |               |      |              |
|     | Pedagogical      | NPTEL19CS04S514 |               |      | Successfully |
| 2   | Aspect           | 51427           | V Shilpa      | CSE  | completed    |
|     | Computer         |                 |               |      |              |
|     | Organization and |                 |               |      |              |
|     | Architecture: A  |                 |               |      |              |
|     | Pedagogical      | NPTEL19CS04S614 | K.Pranusha    |      | Successfully |
| 3   | Aspect           | 50185           | Reddy         | CSE  | completed    |
|     | Joy of computing | NPTEL19CS09S514 |               |      |              |
| 4   | using Python     | 51233           | V.Aruna       | CSE  | Elite+gold   |
|     | Joy of computing | NPTEL19CS09S614 | Madhavi       |      |              |
| 5   | using Python     | 50218           | Vagu          | CSE  | Elite+Silver |
|     | Joy of computing | NPTEL19CS09S614 |               |      | Elite+gold+T |
| 6   | using Python     | 50284           | D. Subhashini | CSE  | op1%         |
|     | Data Base        |                 |               |      |              |
| _   | Management       | NPTEL19CS12S314 |               |      | Successfully |
| 7   | System           | 50169           | T Soumya      | CSE  | completed    |
| 0   | Data Maria       | NPTEL19CS15S314 | TV            | 665  | Fig St       |
| 8   | Data Mining      | 50443           | Ramanamma     | CSE  | Elite+Silver |
|     | Privacy and      |                 |               |      |              |
|     | Security in      |                 |               |      |              |
| _   | Online Social    | NPTEL19CS25S514 |               |      | Successfully |
| 9   | Media            | 51099           | K.Padmini     | CSE  | completed    |
|     | Cryptography     | NPTEL19CS28S414 | Girija Rani   |      | Successfully |
| 10  | and Network      | 51573           | Suthoju       | CSE  | completed    |

Impact of the Practice/Evid ence of Success

|    | Security  |                          |                               |             |                        |
|----|---|--------------------------|-------------------------------|-------------|------------------------|
| 11 | Cryptography<br>and Network<br>Security                         | NPTEL19CS28S314<br>50663 | Swapna.S                      | CSE         | Successfully completed |
| 12 | English language for Competitive exams                          | NPTEL19HS18S314<br>50231 | Dr. S<br>Jayasrinivasa<br>Rao | Engli<br>sh | Elite+gold+T           |
| 13 | English language for Competitive exams                          | NPTEL19HS18S314<br>50973 | NuvushettiKr<br>anthi Kumar   | Civil       | Successfully completed |
| 14 | Speaking<br>Effectively   | NPTEL19HS21S113<br>60056 | Dr. Poonam<br>Minocha         | Engli<br>sh | Elite+gold+T           |
| 15 | Introduction to Automata, Languages and Computation             | NPTEL19MA15S414<br>50592 | Swapna.S                      | CSE         | Elite                  |
| 16 | Introduction to Automata, Languages and Computation             | NPTEL19MA15S414<br>51515 | Farhana<br>Begum              | CSE         | Successfully completed |
| 17 | Introduction to Automata, Languages and Computation             | NPTEL19MA15S314<br>50561 | Sowmya<br>Srikande            | CSE         | Elite+Silver           |
| 18 | Business<br>analytics and<br>data mining<br>Modeling using<br>R | NPTEL19MG26S31<br>450652 | Tangirala<br>Padmaja          | CSE         | Elite                  |
|    | Business<br>analytics and<br>data mining<br>Modeling using      | NPTEL19MG26S31           |                               |             |                        |
| 19 | R   | 450680                   | K Kavitha                     | CSE         | Elite                  |

<sup>\*</sup>Dr. P. Bharathi, Professor of English, H&AS department was selected by the NPTEL to review and translate the 38 hours course on'Soft Skills 'offered by IITK.

<sup>\*</sup>ATRI Local chapter has been recognised for the best rating point improvement.



#### **Faculty Mentor Certificates**



Please mention the resources like manpower, materials and money required (About 150 words)

# Resources required:

The Computers and Wi-Fi facility were readily available for the members enrolled in NPTEL courses. The digital library was easily accessible coupled with LAN connection. In view of the limitations of the faculty members, if most of the courses offered by NPTEL are considered equivalent to FDP it will motivate many faculty members to pursue more number of courses. Feedback collected from the participants can be more comprehensive in nature.

# For further details/conta ct person:

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