#### **Medical Device Development**

NMAMIT started working with its sister concerns in Nitte University such as K S Hegde Medical Academy (KSHEMA), A B Shetty Memorial Institute of Dental Sciences (ABSMIDS) and other medical Institutions to develop medical devices and to perform research related to medical field. Presently following research and development activities have been sponsored/funded by Nitte University with PI from both the Institutions.

### 1) Development of Automatic System for Analysis and Detection of Puberphonia Speech Disorder Using Deep Neural Networks.

#### **Principal Investigators:**

- Ms. Sarika Hegde, Associate Professor, CSE Department, NMAM Institute of Technology, Nitte.
- 2. Dr. Surendra Shetty, Professor, MCA Department, NMAM Institute of Technology, Nitte.
- 3. Dr. Thejaswi Dodderi, Audiologist & Speech Language Pathologist Justice K S Hegde, Hospital (Lecturer, Nitte Institute of Speech Hearing).

## 2) Expert System design and mobile apps development for prediction of difficulties in airway passing in ICU and operation theatre.

#### **Principal Investigators:**

- Dr. D.K. Sreekantha, Professor, CSE Department, NMAM Institute of Technology, Nitte.
- 2. Dr. Sripada Mehandale, K S Hegde Medical Academy, Nitte University, Deralakatte, Mangalore.

# 3) Web solutions and mobile apps development for community health departments and satellite primary health centres of K S Hegde Medical Academy.

#### **Principal Investigators:**

- Dr. D.K. Sreekantha, Professor, CSE Department, NMAM Institute of Technology, Nitte.
- 2. Dr. Sripada Mehandale, K S Hegde Medical Academy, Nitte University, Deralakatte, Mangalore.

#### 4) Study on feedback during CPR.

#### **Principal Investigators:**

- Dr. Rekha Bhandarkar, Professor & Head, ECE Department, NMAM Institute of Technology, Nitte.
- 2. Dr. Sripada Mehandale, K S Hegde Medical Academy, Nitte University, Deralakatte, Mangalore.

#### 5) Development of patient lift system.

#### **Principal Investigators:**

- Melwyn, Assistant Professor, Mechanical Department, NMAM Institute of Technology, Nitte
- 2. Dr. Shivakumar Hiremath, Medical Superintendent, K S Hegde Medical Academy, Nitte University, Deralakatte, Mangalore.

#### 6) Development of trainer Stethoscope.

#### **Principal Investigators:**

- Dr. Shivaprakash, Associate Professor, ECE Department, NMAM Institute of Technology, Nitte.
- 2. Mr. Pradyumna G R Assistant Professor, ECE Department, NMAM Institute of Technology, Nitte.
- 3. Dr. Ashish Sing, Assistant Professor, ECE Department, NMAM Institute of Technology, Nitte.
- 4. Dr. Fathima D'Silva, Principal, Nitte Usha Institute of Nursing Sciences, Nitte University, Deralakatte, Mangalore.