Content

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnana Sangama, Belgaum – 590 014

A Technical Project Report on

"Ponseti Shoes Based on IoT"

Submitted in partial fulfillment for the award of degree of

BACHELOR OF ENGINEERING
in
COMPUTER SCIENCE & ENGINEERING

During the Academic year 2018-2019

Submitted By

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Under the guidance of

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CERTIFICATE

Certified that the project work entitled **PONSETI SHOES BASED ON IOT** carried out by **RAJEEV RANJAN** (1DB15CS120), a bonafide student of **DON BOSCO INSTITUTE OF TECHNOLOGY** in partial fulfillment for the award of the degree of Bachelor of Engineering in Computer Science & Engineering of the Visvesvaraya Technological University, Belgaum during the academic year 2018-2019. It is certified that all corrections / suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project has been approved as it satisfies the academic requirements in respect of the Project Work prescribed for the Bachelor of Engineering Degree.

Signature of guide	**Signature of HOD**	**Signature of Principal**
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Shivakumar dalali Assoc. Prof. Dept. of CSE DBIT, Bengaluru	**Prof. B. S. Umashankar** Head of Dept. Dept. of CSE DBIT, Bengaluru	**Dr. M. Muralidhara Rao** Principal DBIT DBIT, Bengaluru

External Viva:

Name of the Examiners	Signature with date:
1. ……	……
2. …….....	……

DON BOSCO INSTITUTE OF TECHNOLOGY

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DECLARATION

I, RAJEEV RANJAN (1DB15CS120), students of eighth semester B.E, Department of Computer Science & Engineering, Don Bosco Institute of Technology, Kumbalagodu, Bangalore, declare that the project work entitled “Ponseti Shoes Based On IoT” has been carried out by us and submitted in partial fulfillment of the course requirements for the award of degree in Bachelor of Engineering in Computer Science & Engineering of Visvesvaraya Technological University, Belgaum during the academic year 2018-2019. The matter embodied in this report has not been submitted to any other university or institution for the award of any other degree or diploma.

Place: Bangalore **Rajeev Ranjan** (1DB15CS120)

Date:

ABSTRACT

Clubfoot is a birth defect where one or both feet are rotated inward and downward. The affected foot and leg may be smaller than the other. In about half of those affected, both feet are involved. Most cases are not associated with other problems. Without treatment, people walk on the sides of their feet, which causes problems with walking.

The exact cause is usually unclear. A few cases are associated with distal arthrogryposis or myelomeningocele. If one identical twin is affected, there is a 33% chance the other one will be as well. Diagnosis may occur at birth or before birth during an ultrasound exam.

Initial treatment is most often with the Ponseti method.[1] This involves moving the foot into an improved position followed by casting, which is repeated at weekly intervals. Once the inward bending is improved, the Achilles tendon is often cut, and braces are worn until the age of four.[1] Initially, the brace is worn nearly continuously and then just at night. In about 20% of cases, further surgery is required.

Clubfoot occurs in about 1 in 1,000 new-borns. The condition is less common among Chinese and more common among Maoripeople. Males are affected about twice as often as females.[1] Treatment can be carried out by a range of healthcare providers and can generally be achieved in the developing world with few resources.

The Ponseti method is a manipulative technique that corrects congenital clubfoot without invasive surgery. It was developed by Ignacio V. Ponseti of the University of Iowa Hospitals and Clinics, USA in the 1950s, and was repolarized in 2000 by John Herzenberg in the USA and Europe and in Africa by NHS surgeon Steve Mannion. It is a standard treatment for club foot.

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RAJEEV RANJAN