



International Journal on Recent Researches In Science, Engineering & Technology

(Division of Electronics and Instrumentation Engineering)

A Journal Established in early 2000 as National journal and upgraded to International journal in 2013 and is in existence for the last 10 years. It is run by Retired Professors from NIT, Trichy.

It is an absolutely free (No processing charges, No publishing charges etc) Journal Indexed in JIR, DIIF and SJIF.

Research Paper

Available online at: www.jrrset.com

Chief Editor : Dr. M.Narayana Rao, Ph.D., Rtd. Professor, NIT, Trichy.

ISSN (Print) : 2347-6729

ISSN (Online) : 2348-3105

Volume 3, Issue 4,
April 2015

JIR IF : 2.54

DIIF IF : 1.46

SJIF IF: 1.329

A Survey on mechanical modelling, control and locomotion of Snake robots

Yaashwanth. L¹

¹Student, Mechanical Engineering Department,
Anand Institute of Higher Technology,
Kazhipattur, OMR
Chennai, India.
(yaashwanth123@gmail.com)

Roja. R¹

¹Student, Electronics and Instrumentation Engineering Department,
Jeppiaar Engineering College, OMR
Chennai, India.
(roja.rojaravi@gmail.com)

Arul .K²

²Assistant Professor, Mechanical Engineering Department,
Anand Institute of Higher Technology,
Kazhipattur, OMR
Chennai, India.
(arulroll7@gmail.com)

Abstract: For decades have the human race fought their wits out, to make robots that are adaptive to all terrains. Snake robots were conspicuous by their versatile locomotive gaits and their applications in variety of fields. Inability of the humans or robots to access certain places in congested industrial environment has been transformed into history due to the development of snake robots. Humans have almost conquered this world, but the robots have already set out to conquer Mars. These snake robots promise to be a suitable solution for certain problems faced by robots which are in Mars. Such futuristic skills possessed by these snake robots have inspired the authors to collect a complete survey on numerous snake robots developed so far. The review is based on mechanical modeling, control and sensors, different locomotive gaits and various applications of snake robots. This paper also focuses on more recent works in this field and on the possible development that can be made in snake robots to improve their versatility.