



**RESEARCH ARTICLE**

# **A Novel Positioning Technique for 3D Underwater Sensor Networks**

**Aditya Tandon<sup>1</sup>, Kamal Kant<sup>2</sup>**

<sup>1</sup>Department of CS&E, Amity University, India

<sup>2</sup>Department of CS&E, Amity University, India

<sup>1</sup> [adityatandon.88@gmail.com](mailto:adityatandon.88@gmail.com); <sup>2</sup> [kamalkant25@gmail.com](mailto:kamalkant25@gmail.com)

---

***Abstract— Positioning or Localization, that is, determining the location of every sensor is important and the process aims to have the maximum percentage of localized nodes whether stationary or in motion. This paper elaborates the idea of mining applications in the underwater scenario and also highlights the basic differences between terrestrial sensor networks with the underwater paradigm while exploring the different positioning approaches that are relevant to underwater sensor networks as well as the challenges in meeting the requirements posed by emerging applications. We propose a new algorithm which uses the (mining counter-measure) MCM applications through of an UUV-guided positioning system in an UW-ASN. Also, we have compared with the other related work previous done on this very same field and we have proved that our work yields better results than the previous work done and the performance analysis through various MATLAB simulations have been shown.***

***Key Terms: - Underwater Wireless Acoustic Sensor Networks (UW-ASNs); Acoustic Communication; Terrestrial Wireless Sensor Networks (TWSNs); Radio Frequency (RF); Localization; Anchor Node; UA (Underwater Acoustic) Node; Surface Buoy; MCM***

---

Full Text: <http://www.ijcsmc.com/docs/papers/June2013/V2I6201308.pdf>