

Volume 4 Issue 3, March 2016

**International Journal of Innovative
Science and Modern Engineering**

ISSN : 2319 - 6386 (Online)

Website: www.ijisme.org



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Exploring Innovation: A Key for Dedicated Services

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<p>Abstract: The task of development of the measurement procedure and the general-purpose control equipment which can allow us to analyze fluid rheological properties and to ascertain the dependence of the stress tensor of the sample on the deformation tensor over a wide range of strain rates is urgent nowadays. At the same time the question of providing the continuous inspection of the product properties under the condition of high precision and measuring automation is a matter of principle.</p> <p>Keywords: viscosimeter, measuring automation.</p> <p>References:</p> <ol style="list-style-type: none"> Abramovich G.N.: Applied Gas Dynamics (Prikladnaya gazovaya dinamika), Moscow: Gostechizdat, 1951 (in Russian). Azarov B.M., Aret V.A.: Rheological Engineering of Food Processing (Ingenernaya reologiya pischevih proizvodstv), Moscow: Moscow State University of food production, 1978, 112 (in Russian). Anderson D., Tannehill G., Pletcher R.: Computational Fluid Mechanics and Heat Transfer. V.1.- Moscow: The World, 1990, 382. Alabugev P.M., Elnikov N.N., Kimnarsky M.Sh., Loktionov A.P., Polischu V.G.k, Sokolov V.S., Tatyanchenko V.A., Chigov A.E., Yushin V.V.: Similarities and Modelling in Sums and Exercises tutorial, Kursk: KSTU, 1997, 172 (in Russian). Altshul A.D., Kiselev P.G.: Hydraulics and Aerodynamics (fluid mechanics principles) (Gidravlika i aerodynamika), Moscow: Stroisdat Publishing House, 1975, 323. Altshul A.D. and others: Hydraulics and Aerodynamics, edited by Altshul A.D., Givotovsky L.S., Ivanov L.P., Moscow: Stroisdat Publishing House, 1987, 414. N. Evdokimov and N.Yu. Eliseev, characteristics of viscous flow of liquid media with resins and asphaltenes". Chemistry and Technology of Fuels and Oils, Vol.35, No.6, 1999 C.T. Nguyen and F. Desgranges, Temperature and particle -Size Dependent Viscosity Data for Water-Based Nan fluids- Heystersis Phenomenon", International Journal of Heat and Fluid Flow, Vol. 28, Issue 6, Dec. 2007, pp 1492-1506. Richard J. Goldstein, "Fluid Mechanics Measurements" 2nd edition , Taylor & Francis, 1996. Rehoo Tec Messtechnik Gmb4, operating manual, Falling Ball Viscometer KF Germany available at www.rheotec.de Bela G Liptak, "Instrument Engineer's Handbook: Process-M measurement and Analysis" volume 1, 2013 Castro mareelos, D Rodrigues, Oscr M.H, "Experimental Thermal and Fluid Science", vol. 62, April, 2015 		<p style="text-align: right;">1-6</p>	
2.	Authors:		Charlene A. Alcira, Mayraquel G. Balla, Nanette A. Burgos, John Paul O. Bilon, Mark Anthony M. Baris, Roselito E. Tolentino
	Paper Title:	Scalar Product in Acquiring Angle for Mimicking Robotic Elbow using Two Tri-Axial Accelerometers	
<p>Abstract: Most of the robotic arm is controlled using accelerometer by capturing different gestures and postures wherein the movement of the robotic arm is only limited on the given gestures, which doesn't mimic the human arm correctly. This paper presents a method to acquire angle in mimicking robotic elbow using two low cost and small tri-axial accelerometers. These accelerometers are attached to the upper arm and forearm of the user. To find out the angular position of the elbow joint, scalar product is applied in the computation. The communication between human hand and robotic arm has been established using Arduino microcontroller. The result is that the robotic arm's movement is synchronous with human arm's movement. The system has been developed in Arduino IDE platform and Lab VIEW Robotics. In conclusion, the application of scalar product is effective in acquiring the value of user's elbow angle.</p> <p>Keywords: Accelerometers, Elbow Angle, Robotic Elbow, Scalar Product</p> <p>References:</p> <ol style="list-style-type: none"> Algan Uskarci. (2004). Human Arm Mimicking using Visual Data. Middle East Technical University Available from http://www.eee.metu.edu.tr/~alatan/PAPER/MSalgan.pdf Aggarwal, Love, Varnika Gaur and Puneet Verma. (2013). Design and Implementation of a Wireless Gesture Controlled Robotic Arm with Vision. International Journal of Computer Applications, Vol.79. Available from http://research.ijcaonline.org/volume79 /number 3/pxc3891906.pdf Khajone, Saurabh, Dr. S. W. Mohod and V.M. Harne. (2015). Implementation of a Wireless Gesture Controlled Robotic Arm. International Journal of Innovative Research in Computer and Communication Engineering, Vol.3 Issue 1. India: SantGadge Baba University. Available from http://www.rroij.com/open-access/implementation-of-a-wireless-gesturecontrolled-robotic-arm.pdf Neto, Pedro, J. Norberto Pires and A. Paulo Moreira. (2009) Accelerometer-Based Control of an Industrial Robotic Arm. Japan: The 18th IEEE International Symposium on Robot and Human Interactive Communication. Retrieved from: http://arxiv.org/ftp/arxiv/papers/1309/1309.2090.pdf Pedley, Mark. (2013) Tilt Sensing Using a Three-Axis Accelerometer. Freescale Semiconductor Inc. Available from https://cache.freescale.com/files/sensors/doc/app_note/AN3461.pdf Verma, Shamsheer. Hand Gestures Remote Controlled Robotic Arm. India: Research India Publications, Volume 3, 2013. [pdf file] Retrieved from: http://www.ripublication.com/aeee/80_pp%20%20%20601-606.pdf E-gizmo. Digital Accelerometer. Available from http://www.egizmo.com/KIT/ADXL345.html Analog. ADXL345 specification. Available from http://www.analog.com/en/products/mems/mems-accelerometers/adxl345.html#product-overview 		<p style="text-align: right;">7-12</p>	
3.	Authors:		Nagwa Albeherly, Tonghui Wang
	Paper Title:	Stochastic Dominance to Study Poverty Measures and its Applications	

Abstract: Poverty measures are used to measure poverty levels or degrees of poverty in a population. Stochastic dominance refers to a set of relations between distributions. Stochastic dominance orders of poverty measures have been discussed by many authors in the literature. In this paper, definition of stochastic dominance is introduced and used to order poverty measures. Hypotheses testing on stochastic dominance ordering of poverty measures are obtained. For illustration, our results are applied to the real data sets collected in Egypt between 1995/1996 to 2008/2009.

Keywords: Poverty measures, poverty lines, stochastic dominance, Hypotheses testing.

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Authors: Rasi Shamalbhaj Bhatol

Paper Title: Design and Simulation of Microstrip Patch Antenna for RFID Application

Abstract: This paper presents a new design of a microstrip patch antenna. The slotted antenna is presented for RFID applications. The antenna is simulated using Ansoft HFSS and area of the antenna is 7.92mm x10.92mm. The FR4 substrate is used in this antenna. This is a very compact, high efficiency and simple microstrip patch antenna. This Antenna increases the gain and reduces the complication of design greatly while compared to other slot geometries. This slot can also reduce the size of the patch. The proposed antenna is designed for the 5.8 GHz ISM band.

Keywords: Rectangular Microstrip Slotted Antenna (RMSA), High Frequency Simulation Software (HFSS).

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