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Manuscript. Id.		Volume 1Issue 1, September 2020, ISSN: (Online)	Page No.	
	Author	Santosh Atole		
	Paper Title	EXPERIMENTAL INVESTIGATION OF HEAT		
	-	TRANSFER AUGMENTATION IN TRIANGULAR DUCT	WITH	
		RECTANGULAR WING		
	Abstract: - T	This paper includes the study of heat transfer augmentation in		
		t with rectangular wing with experimentally. The air as working		
	U U	due to high thermal resistance. The longitudinal vortex generator		
		ing technique to enhancement of heat		
		longitudinal vortices are produced due to pressure difference		
		ween front and back surfaces of the vortex generator. An		
		sign of triangular shaped duct with rectangular wing vortex		
		nounted on the bottom surface of duct for augmentation of heat		
		n plate- fin heat exchanger. The range of Reynolds number is		
		103 taken for development of turbulent zone. As the solution is		
		er certain number of iteration, the values of pressure drop, Nusselt		
		age temperature and friction factor are calculated for different		
		k and for different pitch and compared same parameter for plain		
	duct without re	ectangular wing.		
		Heat Exchanger, Rectangular wing, Reynolds number, Nusselt		
	number, Fricti	on Factor.		
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	•	Li ,Ci-Lei Chen, Shung-Ming Chao, Gu-Fan Liang, "Enhancing		
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	transfer enhancement in a fin and tube heat exchanger using vortex generators",	
	International Journal of Heat and Mass Transfer 78 (2014) 662–669.AuthorElectricity Generation through Gravity Fed Water Pipes	
	AuthorElectricity Generation through Gravity Fed Water PipesPaper TitleRupesh G. Telrandhe, Anil G. Gawande, Ajay N. Ingale	
	Abstract: - In a time of rising climate change crises there is a more pressure	
	than ever to find effective energy harvesting method in order to secure our future. In today's word automobile sectors are introducing new technologies to run vehicles with the help of electricity. Objective of this project is to create	
	self-sustainable system to generate electricity. Converting kinetic and pressure energy of flow of water which runs the turbine assembly couple to generator	
	sequentially located in the channel of water. Water flow in the domestic pipes as kinetic energy has that potential to generate electricity for use and storage purpose in addition to perform routine activities such as a laundry, cook, bath	
	etc. In this project, The high water pressure and flow inside the pipe from utility main tank that use for those usual routine activities is also using to rotate small	
	scale hydro-turbine which is attached to pipeline at calculated required height to drive generator for electrical power generation. This project is one step towards generating clean and renewable hydro energy. Paper describes development of	
	Pico hydro generation system and efficient utilization of water energy. Hence,	
	this project is conducted to develops a hydro-generation system using consumed	
	water distributed to houses has an alternative energy source for residential use.	
	The generated power will be stored in the battery sources for the future use	
<b>TAME 002</b>	which will also satisfies the domestic needs. This project is implemented under the sort of environmental condition where the velocity of water flow is higher.	
	Keywords: - Hydraulic Turbine, Losses in Pipes	
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	methational journal of Emerging recimology and Advanced Engineering	

<b>TAME 004</b>	Author	Yogesh Joshi, Dinesh R Zanwar Performance analysis of parallel uniform rectangular fin and	
TAME 003	Reference 1. H.E.Ang a Discs', Journal 2. FESSLER, I Rotating Discs 3. FESSLER, Rotating Discs 4. H.E.Ang an Rotating Discs 5. TAN, C.	isc, Non central hole, Stress concentration, FEM nd C.L.Tan, 'Stress Concentration at Holes in Thin Rotating of Strain Analysis Vol.23, No.4, P. No. 223-225,1988 H. and THORPE, T. E. 'Optimization of Stress Concentrations in ', Journal of Strain Analysis, Vol.2, P.No.152-358,1967 H. and THORPE, T. E. 'Reinforcement of Non-central Holes in ', Journal of Strain Analysis, Vol.2, P.No.317-323, 1967 d C.L.Tan, 'Stress Intensity Factors for Cracks at Holes in Thin ', International Journal of Fracture, 40, P.No.R3-R11, 1989. L. and FENNER, R. T. 'Elastic Fracture Mechanics by the gral Equation Method', Proc. R. Soc. Lond., A369, P. No. 243-	
	turbine for por www.elsevier. 8. P. Padmaras A. Yatheeswan DOI 10.4010/2 9. D Hoffman Energy Harve Applications, p Conference Se 6596/476/1/01 <b>Author</b> Paper Title Abstract: - In and a symmetr using Finite I derived for van number of hol decreases. The H.E.Ang and C	<ul> <li>wer generation from water pipelines,proc. Of journal homepage: com/locate/energy.</li> <li>san, CS. Ajin Sekhar, RM. Meenakshi Sundaram, S. Ramkumar, ran, V. Deepan, Power Generation from Water Pipeline, Proc. of 2016.744ISSN 2321 3361 ,2016 IJESC, volume 6 issue no.3.</li> <li>n, A Willmann, R Göpfert, P Becker, B Folkmer and Y Manoli, sting from Fluid Flow in Water Pipelines for Smart Metering proc. Of Power MEMS 2013 IOP Publishing Journal of Physics: ries 476 (2013) 012104 doi:10.1088/1742-2104.</li> <li>Ashvin Deogade</li> <li>Investigation of Effect on Stresses in Rotating Disc with Non Central Circular Holes</li> <li>the present work the problem of circular disc with a central hole cical array of non-central holes subjected to rotation are analysed Element Method. The Stress Concentration Factors (SCF) is tious geometric parameters like, R2/R1, d/2R1, R b / (R2-R1) and es (N). It is seen that, as the number of holes increases, the SCF eresults are compared with the analytical solution given by C.L.Tan.</li> </ul>	
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	uniform plate and cylindrical pin for the heat sink application. Both comparative study has been done by using aluminium alloy and copper alloy. Both heat sink with their material allow to produce constant heat flux from the base as 50 Watt. Temperature distribution and total directional heat flux for each material has been mentioned with their magnitude. At 50 Watts of power obtaining from the base copper alloy shows the better results as compared to the aluminum alloy. Study also shows the advantage of parallel uniform rectangular heat sink over the cylindrical pin fin heat sink.	
	Keywords: - Heat sink, Al alloy, Cu Alloy.	
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	43 (2000) 2037-2008       Author       Pramar Bakane	
	Paper Title         Conceptual design of self-energizing clutch actuator system	
<b>TAME 005</b>	Abstract: - As improving fuel efficiency has become an issue in the field of automotive industry, the developments of advanced transmission technologies such as automated manual transmissions (AMTs) and dual clutch transmissions (DCTs) have led to the incentives of energy efficiency. However, the control performance is not quite satisfactory since the dry clutch systems used in conventional transmissions are generally suitable for manual operation by a driver rather than automated controls. To cope with such problems, this paper suggests a novel design for a clutch actuator system suitable for automatic transmissions. System characteristics composed of self- energizing mechanism and the electromechanical device are presented to analyze self-energizing effect and the stiffness of actuator system. Also, the dynamic model and control system for clutch positioning are given.	SE
	Keywords: - Transmission system, automated, dual clutch, self energizing mechanism	
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60	Author         Optimization of friction stir welding process parameter	
	Paper Title         Mayur Gaur, Prashant Awachat	
	Abstract: - Friction Stir Welding can be defined as a solid-state welding process	
	that is applied in welding materials that are similar and dissimilar. This process is advantageous because it leads to sound welds and does not lead to	
	complications including cracking which is associated with fusion techniques of	
	welding. In order to commercialize the process of friction stir welding, research	
	must be carried out for characterization and the establishment of process	
	windows. Hence, many researchers have been inspired by this process to	
	attempt joining dissimilar materials. Residual stresses are formed in friction stir	
	welded work piece. Formation of residual stresses in rigidly clamped work	
	piece occurs due to expansion during heating and contraction during cooling.	
<b>TAME 006</b>	The presence of such residual stress in a weld plate affects its distortion	
TAME 000	behavior and ability to sustain applied loads while maintaining structural	
	integrity. The study of residual stress evolution is essential in predicting the	
	performance of the weld. Additionally, efforts have to be made to reduce the	
	residual stresses and distortions. However, studies on residual stress in FSW	
	steels are limited to its prediction and very few attempts have been made to	
	investigate parameters affecting its magnitude and to optimize the thermo- mechanical process	
	Keywords: - Friction Stir Welding, Residual stresses, dissimilar material	
	<ul> <li>Keywords: - Friction Stir Welding, Residual stresses, dissimilar material</li> <li>Reference</li> <li>1. Abbasi, Mahmoud &amp; amp; Keivani, Rasoul. (2015). Thermal analysis of friction stir welding process and investigation into affective parameters using</li> </ul>	

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<ul> <li>Thermal Analysis for Friction Stir Welding of Aluminum Alloy and Coppe", International Journal &amp; Amp; Magazine of Engineering, Technology, Management and Research, Volume 2, Issue 12, 2015.</li> <li>3. Ajit Kumar, Dr. M. V. Mallikarjuna, &amp; Thermal Analysis of Friction Stir Welding International Journal of Engineering Research &amp; Amp; Technology (UERT), Vol. 4 Issue 02, February-2015</li> <li>4. Amay Deorao Meshram, &amp; Finite Element Modeling of Friction Stir Welding, Thermal Analysis &amp; International Journal of Engineering Research &amp; Amp; Technology (UERT), Vol. 3 Issue 1, January –2014</li> <li>5. Khalfallah, Farez (2016). Effect of the Tool Geometries on Thermal Analysis of the Friction Stir Welding. 10.5923/j.mechanics.20160601.01.</li> <li>6. Mohammad Amin Bozorgzadeh, Mohd Hasbulah Idris, &amp; Friction Stir Welding", International Journal of Review in Life Sciences, Volume 5, (2015), Issue 3 (Jul-Sep), Pages 72-75</li> <li>7. Young-Bin Lim, and Kwang-Jin Lee, &amp; Quot;Microtexture and Microstructural Evolution of Friction Stir Welded AA5052-H32 Joints" Journal of Welding and Joining, Vol.37 No.2(2019) pp35-40 https://doi.org/10.5781/JWJ.2019.37.2.6</li> <li>8. Raj Kumar V, VenkateshKannan, M, Sadeesh, P, Arivazhagan, N, Devendranah Ramkuma K. &amp; Studies on effect of tool design and welding parameters on the friction stir welding of dissimilar aluminium alloys AA 5052 – AA 6061&amp;guot Advanced Structural and Functional Materials for Protection Proceedia Engineering 75 (2014) 93 – 97</li> <li>9. Mohammad Sohail Ahmed, G. Venkataramana, Dr. M. Janga Reddy &amp; Friction Stir Welding of 606-176 Aluminum Pipe" Int. J. Mech. Eng. &amp; Kamp; Rob. Res. 2012 Qasim M Doos and Bashar Abdul Wahab, Int. J. Mech. Eng. &amp; Kamp; Rob. Res. 2011 Qasim M Doos and Bashar Abdul Wahab, Int. J. Mech. Eng. &amp; Kamp; Rob. Res. 2012 Qasim M Doos and Bashar Abdul Wahab, Int. J. Mech. Eng. &amp; Kamp; Rob. Res. 2011 Qasim M Doos and Bashar Abdul Wahab, Int. J. Mech. Eng. &amp; Kamp; Rob. Res. 2011 Qasim</li></ul>		10.1007/s12206-015-0149-3.	
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Manuscript. Id.	Volume 1Issue 1, September 2020, ISSN: (Online)		Page No.
	Author	Santosh Atole	
	Paper Title	EXPERIMENTAL INVESTIGATION OF HEAT TRANSFER AUGMENTATION IN TRIANGULAR DUCT RECTANGULAR WING	WITH
TAME 001	triangular duct fluid because of is the promisin transfer. The generated bet innovative de generator is m transfer rate i 4*103 to 22*1 converged afte number, avera angle of attacl duct without rate <b>Keywords:</b> - number, Fricti <b>Reference</b> [1] Chi-Chua visualization of exchanger app (2002) pp380 [2] Z. X. Yuar Ducts with W pp1-9. [3] Jalal M. Ja Shape on Hea Vol. 17 No. 2, [4] Balvinder and Heat Tran International J 3, June 2012, p [5] M. Mirzae tube heat excl tubes", IJST, T [6] Hung-Yi I heat transfer international J [7] Ya-Ling H heat transfer rectangular with	<ul> <li>This paper includes the study of heat transfer augmentation in t with rectangular wing with experimentally. The air as working due to high thermal resistance. The longitudinal vortex generator ng technique to enhancement of heat</li> <li>longitudinal vortices are produced due to pressure difference tween front and back surfaces of the vortex generator. An esign of triangular shaped duct with rectangular wing vortex anounted on the bottom surface of duct for augmentation of heat n plate- fin heat exchanger. The range of Reynolds number is 103 taken for development of turbulent zone. As the solution is er certain number of iteration, the values of pressure drop, Nusselt age temperature and friction factor are calculated for different k and for different pitch and compared same parameter for plain ectangular wing.</li> <li>Heat Exchanger, Rectangular wing, Reynolds number, Nusselt on Factor.</li> <li>In Wang a, Jerry Lo,Yur-Tsai Lin, Chung- SzuWei, "Flow of annular and delta winglet vortex generators in fin-and-tube heat plication", International Journal of Heat and Mass Transfer 45 03–3815.</li> <li>In and Q. Tao X. T. Yan, "Experimental Study on Heat Transfer in /inglet Disturbances", Heat Transfer Engineering, 24(2), (2003)</li> <li>adil, Hassan K. Abdulla and Ahmed H. Yousif, "Effect of Winglet transfer from Heated Cylinder in Cross Flow", Engg. Science, pp. 119 - 130 (2006).</li> <li>Budania and Harshdeep Shergill, "Simulation of Flow Structure asfer Enhancement in A Triangular Duct with Rectangular Wing", Journal of Engineering and Management Research, Vol. 2, Issue-</li> </ul>	1-7

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	Author	Rupesh G. Telrandhe, Anil G. Gawande, Ajay N. Ingale	
	Paper Title	Electricity Generation through Gravity Fed Water Pipes	
		a time of rising climate change crises there is a more pressure	
		ind effective energy harvesting method in order to secure our	
		y's word automobile sectors are introducing new technologies to	
		with the help of electricity. Objective of this project is to create	
		e system to generate electricity. Converting kinetic and pressure	
	0.	of water which runs the turbine assembly couple to generator	
		cated in the channel of water. Water flow in the domestic pipes	
		gy has that potential to generate electricity for use and storage	
		lition to perform routine activities such as a laundry, cook, bath	
	1 5	ject, The high water pressure and flow inside the pipe from utility	
		use for those usual routine activities is also using to rotate small	
		bine which is attached to pipeline at calculated required height to	
		r for electrical power generation. This project is one step towards	
		an and renewable hydro energy. Paper describes development of neration system and efficient utilization of water energy. Hence,	
		conducted to develops a hydro-generation system using consumed	
		ed to houses has an alternative energy source for residential use.	
		power will be stored in the battery sources for the future use	
<b>TAME 002</b>		o satisfies the domestic needs. This project is implemented under	8-13
		ironmental condition where the velocity of water flow is higher.	0 10
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	Paper Title	Investigation of Effect on Stresses in Rotating Disc with Non Central Circular Holes the present work the problem of circular disc with a central hole	
	Author	Ashvin Deogade	
	Volume 3, Issu 5. Shaleen Ma and its Utiliza Journal of Ad (IJARCET) Vo 6. Marco Casi building scale, 7. Chen , H.X. turbine for pow www.elsevier.o 8. P. Padmaras A. Yatheeswar DOI 10.4010/2 9. D Hoffmann Energy Harves Applications, J	<ul> <li>A. jetae.com (ISSN 2250-2459, ISO 9001:2008 Certified Journal, ie 10, October 2013).</li> <li>artin, Abhay Kumar Sharma, Analysis on Rainwater Harvesting tion for Pico Hydro Power Generation, Proc. Of International vanced Research in Computer Engineering &amp; amp; Technology olume 3 Issue 6, June 2014.</li> <li>ni, Harvesting energy from in-pipe hydro systems at urban and proc. Of International Journal of Smart Grid and Clean Energy.</li> <li>Yang , C.P. Liu , C.H. Lau , M. Lo , A novel vertical axis water wer generation from water pipelines,proc. Of journal homepage: com/locate/energy.</li> <li>san, CS. Ajin Sekhar, RM. Meenakshi Sundaram, S. Ramkumar, ran, V. Deepan, Power Generation from Water Pipeline, Proc. of 2016.744ISSN 2321 3361 ,2016 IJESC, volume 6 issue no.3.</li> <li>n, A Willmann, R Göpfert, P Becker, B Folkmer and Y Manoli, sting from Fluid Flow in Water Pipelines for Smart Metering proc. Of Power MEMS 2013 IOP Publishing Journal of Physics: ries 476 (2013) 012104 doi:10.1088/1742-2104.</li> </ul>	

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	base as 50 Wa	with their material allow to produce constant heat flux from the att. Temperature distribution and total directional heat flux for	
	obtaining from	has been mentioned with their magnitude. At 50 Watts of power the base copper alloy shows the better results as compared to the	
	•	y. Study also shows the advantage of parallel uniform rectangular he cylindrical pin fin heat sink.	
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	automotive ind such as automa (DCTs) have le	Conceptual design of self-energizing clutch actuator system improving fuel efficiency has become an issue in the field of lustry, the developments of advanced transmission technologies ated manual transmissions (AMTs) and dual clutch transmissions ed to the incentives of energy efficiency. However, the control is not quite satisfactory since the dry clutch systems used in	
	driver rather th	ransmissions are generally suitable for manual operation by a an automated controls. To cope with such problems, this paper yel design for a clutch actuator system suitable for automatic	SE
<b>TAME 005</b>	transmissions. System characteristics composed of self- energizing mechanism and the electromechanical device are presented to analyze self-energizing		
		tiffness of actuator system. Also, the dynamic model and control ch positioning are given.	26-30
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	1353–1359, 20 Author	Mayur Gaur, Prashant Awachat	
	Paper Title	Optimization of friction stir welding process parameter	
	Abstract: - Fric	tion Stir Welding can be defined as a solid-state welding process in welding materials that are similar and dissimilar. This process	
	complications welding. In ord	us because it leads to sound welds and does not lead to including cracking which is associated with fusion techniques of ler to commercialize the process of friction stir welding, research ed out for characterization and the establishment of process	
	windows. Hence, many researchers have been inspired by this process to attempt joining dissimilar materials. Residual stresses are formed in friction stir welded work piece. Formation of residual stresses in rigidly clamped work		
PROI	piece occurs due to expansion during heating and contraction during cooling. The presence of such residual stress in a weld plate affects its distortion behavior and ability to sustain applied loads while maintaining structural integrity. The study of residual stress evolution is essential in predicting the performance of the weld. Additionally, efforts have to be made to reduce the		<b>SE</b> 31-40
	residual stresse steels are limit	es and distortions. However, studies on residual stress in FSW ted to its prediction and very few attempts have been made to rameters affecting its magnitude and to optimize the thermo-	
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