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APPLICANT NAME	1 . Dr. SHAIK HUSSAIN 2 . Dr. V. SIVA RAMA KRISHNA 3 . Dr.R. DHARMALINGAM 4 . Mr. T. NARESH KUMAR
TITLE OF INVENTION	EVALUATION OF THRUST FORCE AND TORQUE IN DRILLING OF NATURAL FIBER PARTICLE REINFORCED POLYMER
FIELD OF INVENTION	COMPUTER SCIENCE
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(51) International classification	:G06N0005040000, C08J0005060000, G06F0021440000, H04W0004120000, A01N0047360000	(71) Name of Applicant : 1)Dr. SHAIK HUSSAIN Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING, MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS), MAISAMMAGUDA (H), GUNDLAPOCHAMPALLY VILLAGE, MEDCHAL MANDAL, MEDCHAL-MALKAJGIRI DISTRICT, HYDERABAD, TELANGANA STATE - 500100. Telangana India
(31) Priority Document No	:NA	2)Dr. V. SIVA RAMA KRISHNA
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(33) Name of priority country	:NA	4)Mr. T. NARESH KUMAR
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(57) Abstract :

In this work, a new composite plate with natural Abaca, Mudar and Hemp reinforced polymer composite material by using bio epoxy resin was manufactured and subjected to a series of drilling operation by changing three input factors namely speed, feed rate and depth of cut. During each operation, the output responses namely thrust force and torque were measured. The responses were analyzed using Taguchi method to examine the relation between the input factors and output responses, and also to know the most influencing factors on the responses. The data was also analyzed using fuzzy rule model for prediction of responses for a range of input factors. The results showed that all three factors chosen have significant effect on the responses. The fuzzy model data in comparison with the experimental values shows only a marginal error and hence the prediction was highly satisfactory.

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