. Tensile properties of(Pb-Sn) unreinforced							
Test temperature	Condition	U.T.S (MPa)		Y.S. (MPa)		% Elong	
Room temperature	As-cast	34	34.1*	23	24.1*	18.2	18.8*
	Extruded	47	48.3*	27	28*	23.7	24.2*
100 C	As-cast	42	44.2*	30	31.1*	15.2	16.3*
	Extruded	49	50.1*	35	36.1*	15.1	21.1*
Tensile properties of(Pb-Sn) reinforced with 10% wt SiCp							
Test temperature	Condition	U.T.S (MPa)		Y.S. (MPa)		% Elong.	
Room temperature	As-cast	39	40.3*	29	30,2*	16.5	16.9*
	Extruded	42	42.9*	24	25,1*	19.3	20.3*
100 C	As-cast	30	31.2*	17	17,3*	14.2	15.4*
	Extruded	37	38.3*	14	15,3*	12.7	10.6*
Tensile properties of(Pb-Sn) reinforced with 15% wt SiCp							
Test temperature	Condition	U.T.S (MPa)		Y.S. (MPa)		% Elong.	
Room temperature	As-cast	27	23.7*	20	20.1*	14.3	14.9*
	Extruded	36	27.8*	16	16.9*	16.1	16.7*
100 C	As-cast	21	19.2*	12	12.9*	16.3	17.3*
	Extruded	39	22.4*	15	15.6*	17.4	18.1*
Tensile properties of(Pb-Sn) reinforced with 20% wt SiCp							
Test temperature	Condition	U.T.S (MPa)		Y.S. (MPa)		% Elong.	
Room temperature	As-cast	23		17	17.8*	10.7	11.2*
	Extruded	27		13	14.1*	16.2	17.3*
100 C	As-cast	18		10	11.3*	17.4	18.7*
	Extruded	21		12	13.5*	19.3	19.8*

predicted result *

Table1: The experimentally and predicted tensile properties of Pb-Sn alloy matrix composites

nology, to gain insight into the operation of those systems. Traditionally, the formal modeling of systems has been via a mathematical model, which attempts to find analytical solutions to problems, which enables the prediction of the behavior of the system from a set of parameters and initial conditions. Computer simulations build on, and are an useful adjunct to purely mathematical models in science, technology and entertainment. Finite element analysis (FEA) is a computer simulation technique used in engineering analysis.