

TABLE A2. VALIDATION TEST RESULTS

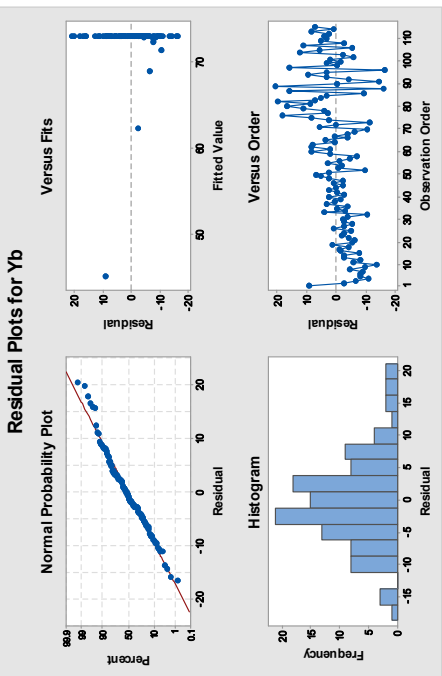
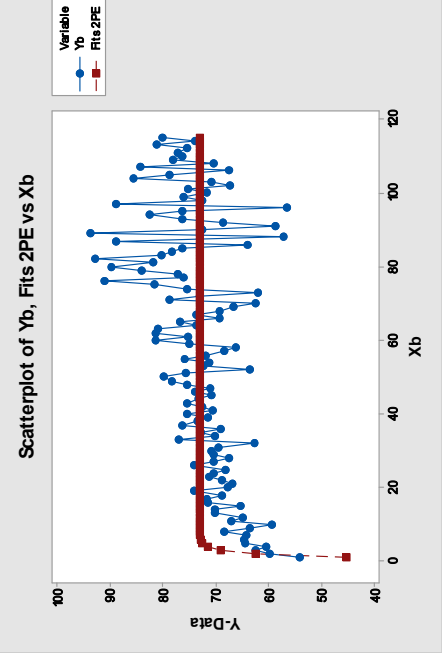
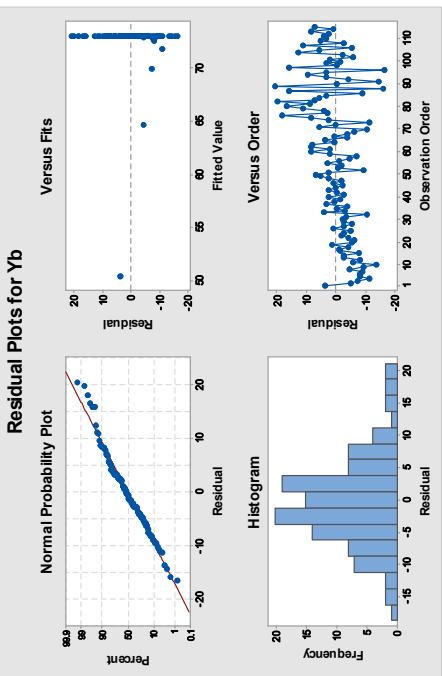
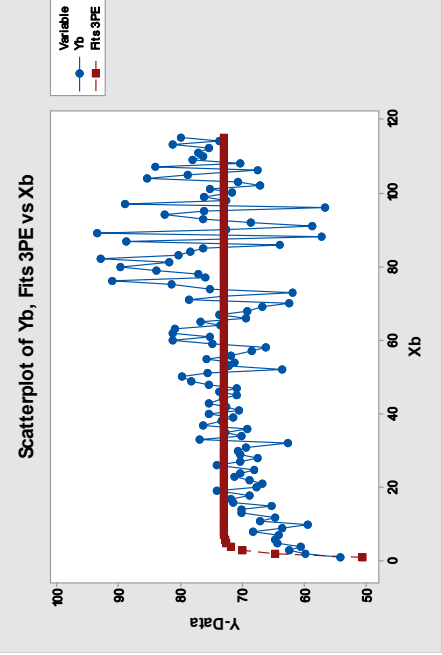
Model	Style N1		Style N2		Style N3		Style N4		Style N5		Style N6		Style N7		Style N8	
	MF	MAD	MF	MAD	MF	MAD	MF	MAD	MF	MAD	MF	MAD	MF	MAD	MF	MAD
M1	3.95	8.06	-16.37	17.42	3.13	10.27	-12.95	15.07	-8.32	9.44	-3.87	10.98	-16.66	17.61	-4.50	9.27
M5	3.96	8.01	-16.71	17.75	3.15	10.47	-13.27	15.14	-7.38	9.89	-3.86	10.82	-16.99	17.72	-4.49	9.39

APPENDIX B

Repeat Styles

TABLE B1. NONLINEAR REGRESSION ANALYSIS RESULTS

No	Model	Residual Plots	Fitted Curve
M1	2-Parameter Hyperbolic	<p>Residual Plots for Yb</p> <p>Normal Probability Plot: Residual vs Percent (0.1 to 99.9). Points follow a straight line.</p> <p>Histogram: Residual vs Frequency (0 to 20). Distribution is roughly bell-shaped.</p> <p>Versus Fitted Value: Residual vs Fitted Value (40 to 70). Points are scattered around zero.</p> <p>Versus Order: Residual vs Observation Order (1 to 110). Points are scattered around zero.</p>	<p>Scatterplot of Yb, Fits 2PH vs Xb</p> <p>Variable: Yb (blue dots), Fits 2PH (red line).</p> <p>The plot shows a clear non-linear relationship between Xb and Yb, with the fitted curve following the data points.</p>
M2	3-Parameter Hyperbolic	<p>Residual Plots for Yb</p> <p>Normal Probability Plot: Residual vs Percent (0.1 to 99.9). Points follow a straight line.</p> <p>Histogram: Residual vs Frequency (0 to 30). Distribution is roughly bell-shaped.</p> <p>Versus Fitted Value: Residual vs Fitted Value (60 to 76). Points are scattered around zero.</p> <p>Versus Order: Residual vs Observation Order (1 to 110). Points are scattered around zero.</p>	<p>Scatterplot of Yb, Fits 3PH vs Xb</p> <p>Variable: Yb (blue dots), Fits 3PH (red line).</p> <p>The plot shows a clear non-linear relationship between Xb and Yb, with the fitted curve following the data points.</p>

<p>M3</p>	<p>2-Parameter Exponential</p>	<p>Residual Plots for Yb</p> 	<p>Scatterplot of Yb, Fits 2PE vs Xb</p> 
<p>M4</p>	<p>3-Parameter Exponential</p>	<p>Residual Plots for Yb</p> 	<p>Scatterplot of Yb, Fits 3PE vs Xb</p> 

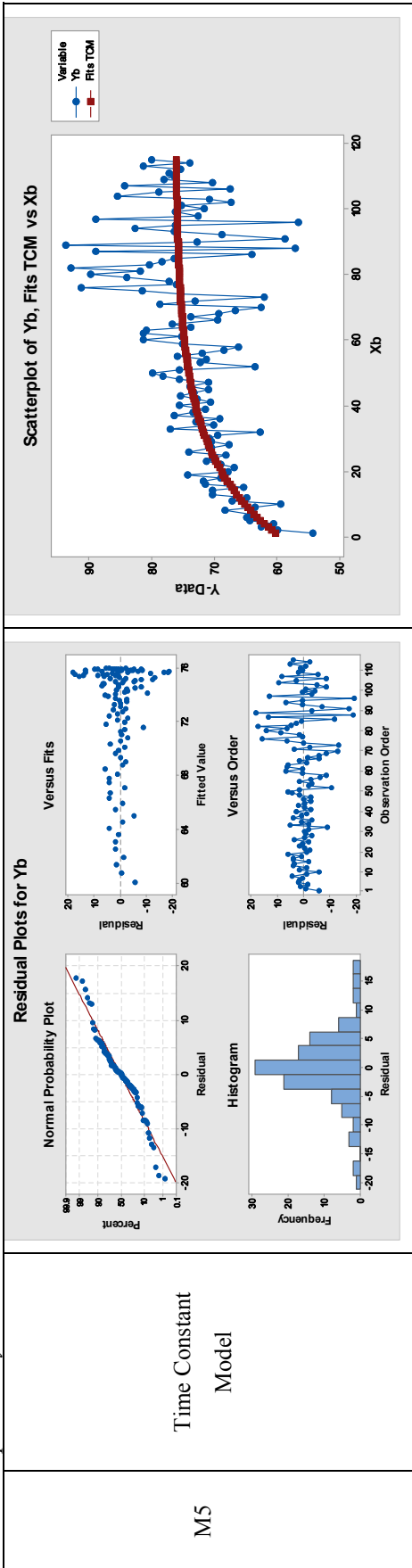


TABLE B2. VALIDATION TEST RESULTS

Model	Style R1		Style R2		Style R3		Style R4		Style R5		Style R6		Style R7	
	MFE	MAD	MFE	MAD	MFE	MAD	MFE	MAD	MFE	MAD	MFE	MAD	MFE	MAD
M2	-0.90	7.91	-0.97	7.99	8.25	8.27	-21.45	21.45	-14.31	14.95	-20.81	20.98	-9.62	11.11
M5	1.00	8.23	-0.86	7.98	8.41	2.68	-21.34	21.34	-14.31	14.97	-20.86	21.02	-9.81	11.16

BIOGRAPHY

Thilini Ranasinghe is a fulltime graduate research student who is currently reading for her M.Phil. in Department of Production Engineering, Faculty of Engineering, University of Peradeniya, Sri Lanka. She has obtained her BSc degree specialized in Production Engineering from the same faculty.

C.D. Senanayake is a Senior Lecturer and Head of the department of Production Engineering, Faculty of Engineering, University of Peradeniya. He has obtained his BSc in Production Engineering from the Faculty of Engineering, University of Peradeniya. He obtained his PhD from the National University of Singapore in 2012 and his research involved the development of analytical tools for evaluating the performance of manufacturing systems. His teaching and research interests include topics in production planning and control, and performance evaluation of manufacturing systems.

Kanthi Perera is a Senior Lecturer in the Department of Engineering Mathematics, Faculty of Engineering, University of Peradeniya. She has obtained BSc Special degree in Mathematics from University of Sri Jayawardenapura, Sri Lanka and M.A. and Ph.D. in Mathematical Statistics from State University of New York, Albany, USA. She has been the Head of the Department of Engineering Mathematics from 2001-2004 and the Coordinator of the M.Sc. program in Applied Statistics (from May 2008- April 2015) and a member of the Board of Study in statistics and Computer Science at the Postgraduate Institute of Science, University of Peradeniya. Dr. Perera is a life member of the Institute of Applied Statistics Sri Lanka. Her research interests are estimation, regression analysis and probability theory.