

LIST OF ACRONYMS

AI	Artificial Intelligence
AL	Assembly Line
ALB	Assembly Line Balancing
ALD	Assembly Line Design
B&B	Branch and Bound
B&C	Branch and Cut
BD	Balance Delay
BFO	Balance For Operation
BP	Batch Production
BPP	Bin Packing Problem
CAD	Computer Aided-Design
CE	Concurrent Engineering
CISAL	Outils d'aide à la conception interactive des produits et de leur ligne d'assemblage
CM	Cellular Manufacturing
CMS	Cellular Manufacturing System
COP	Combinatorial Optimisation Problem
CS	Capacity supply
DAL	Design of Assembly Line
DFA	Design For Assembly
DFM	Design For Manufacturing
DFS	Depth First Search
DM	Decision Maker
DP	Dynamic Programming
E	Line Efficiency
EPALP	Equal Piles for Assembly Line Problem
ES	Evolutionary Strategies
FABLE	Fast Algorithm for Balancing Line Effectively
FF	First Fit
FFD	First Fit Decreasing
FG	Functional Group
GA	Genetic Algorithm
CG	Goal Chasing method
GGA	Grouping Genetic Algorithm
GT	Group Technology
HAL	Hybrid Assembly Line
I	Line Idle time
IB	Imbalance
ICA	Individual Construction Algorithm
ICE	Implicit Complete Enumeration
IUFFD	Intermediate Update First Fit Decreasing
JIT	Just In Time
LB	Lower Bounds
LLL	Logical Line Layout
LP	Linear Programming

MAL	Manual Assembly Line
MCDA	Multi-Criteria Decision-Aid
ML	Model Launching
MLB	Minimal Lower Bound strategy
MMD	Multi/Mixed Model Deterministic
MMS	Multi/Mixed Model Stochastic
MOALBP	Multiple Objective Assembly Line Balancing Problem
MOB-ES	Multiple Objective Evolution Strategy
MOEA	Multiple Objective Evolutionary Algorithm
MOGLS	Multiple Objective Genetic Local Search
MO-GA	Multiple Objective Genetic Algorithm
MO-GGA	Multiple Objective Grouping Genetic Algorithm
MOP	Multiple Objective Problem
MPAL	Multi Product Assembly Line
MPALPF	Multi-Product Assembly Line Problem with a Fixed number of stations
MRH	Multiple Rank Heuristic
MTBF	Mean Time Between Failure
MTTR	Mean Time To Repair
MWkCALB	Multiple Workcenters Assembly Line Balancing Problem
NPGA	Niched Pareto Genetic Algorithm
NSGA	Non-dominated Sorting Genetic Algorithm
OGA	Ordering Genetic Algorithm
OMT	Operating Modes and Techniques
OV	Ordering Variants
OX	Order Crossover
PA	Product Analysis.
PBX	Position Based Crossover
PG	Precedence Graph
PLL	Physical Line Layout
PMX	Partially Mapped Crossover
PROMETHEE	Preference Ranking Organisation METHod for Enrichment Evaluations
PSGA	Problem Space Genetic Algorithm
RD-MOGLS	Random Directions Multiple Objective Genetic Local Search
RP	Resource Planning
RPW	Ranked Positional Weigh
RRPW	The Reversed Ranked Positional Weight
RWS	Roulette Wheel Selection
SA	Simulated Annealing
SALBP-1	Simple Assembly Line Balancing type 1
SALBP-2	Simple Assembly Line Balancing type 2
SALBP-E	Simple Assembly Line Balancing (maximising line efficiency)
SMCT	Scheduling Method Choice Tool
SMD	Single Model Deterministic
SMS	Single Model Stochastic
SPAL	Simple Assembly Line Balancing
SPEA	Strength Pareto Evolutionary Algorithm
ST	Station Time
SUS	Stochastic Universal Sampling
SX	Smoothness Index (SX)
TALB	Tree Assembly Line Balancing
TBGC	Time Based Goal Chasing method
TI	Time Interval
TS	Tabu Search
TVR	Time Variability Ratio
VEGA	Schaffer's Vector Evaluated GA
WC	Work Content
WP	Working Principle