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Optimization of Parallel Production Systems Scheduling Using Multi-Objective Genetic Algorithm Analysis

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Abstract: ***A new mathematical model for the multi-objective scheduling problem is presented in the production system, which aims to minimize the maximum completion time, early cost and delay cost. . A two-dimensional programming model presented for considering my model to be NP-Hard based, two data-generating algorithms (NSGA-II and NR-based). . For the purpose of comparing small and medium sizes and showing the efficiency of the EBs, the model was solved by a 2D method with the restricted EBs, and compared with the NGA-II algorithms. Using the statistics, compute the presented bureaucracies, which will be shown in the graphical view of the bureaucracy.***

Keywords: Scheduling Parallel Production Systems, Multi-Objective Genetic Algorithm, Mathematical Analysis

1. Introduction

Time is a more complex process that tries to optimize the goal. Questions and timing are more likely to have roles in product and service positions. At some point, the job goes to our target group while the menu item relates to whatever job or destination it may be.

Since timing is limited, sometimes they have to be timed to accommodate the consumption of the material. With respect to resources, resources become more urgent and resources at times can provide the benefits and benefits needed for jobs and jobs. At times, resources such as ours, human resources, and so on have been heavily used in today's competition (Tavakoli Moghadam, 2012). It is worth noting that in the current workplace, competitors in the field of business are more productive and more productive than competitors in the field of business. Molded steel springs to remove these cables through automobiles and high-end materials such as steel (JIT), high-speed (QR), high-speed (TQ), and high-voltage (TQ). This has helped many people to earn their living. In Sweden, things should not be too early and late, with time-consuming and late parameters and low emissions. In a competitive marketplace, late jobs are due to their productivity; they are my productive destination. In recent years, the emphasis has been heavily on the introduction of new existing management approaches such as the JIT approach. ک Delivered a lot of time and productive time ﺑِ Saying a job sooner than it was to me would be more difficult than I would have expected. Giving away dirty things(Javadian, 2012).

What a lot of nooks and crannies do in the realm of time is based on the meaning of the word and in the sense of time the words are used in the context of time. Other machines are powered by resources and, for each task, the activity is performed by activities as a set of resources in a consistent way . Generally, the timeframe is expressed as a restricted benefit, in which we review the processing of our work processes. If available for one month, the job processing application ی includes a full time schedule. The fundamentals of the fund, by its simple nature, provide an understanding of the temporal context. In contrast, the appropriate time-series are parallel, serial, and multilayers. In secret and fast-paced, things are being processed on us and have a clearer view (Gholipur Kanani, 2011)

Parallel Months The third number of Parallel Months is used. In the Parallel Month Schedule, there is a set of tasks each of which is processed on one of their existing parallel months. Instead, parallel months are counted negatively so that the timing of work on us does not depend on the type of work but on our type. At this point in my career there is no relationship with my processing times on my months. The place of work includes countless parallel months in the multinational steel industry, including oil, iron ore, and services, in particular, Moni (momeni, 1387)

Today, with the persistent use of the word mumble to manage and invest in the blood, you need to process the work in their favor. In other words, as much money as there is money left in them, it is subject to the law. The three times with early and late times indicate where to place them in the timeliness of the various tasks.

The birth system is the most modern type of organization in the organization that works with these and the methods used to eliminate them, including the benefits and benefits of the task at hand. Nowadays, with the persistent use of the word maul to manage and invest in the blood, you need to process things in their favor. In other words, as much money as there is money left in them, it is subject to the law. The three times with early and late work times determine where to place them in the timeliness of the workloads. In JIT Time Literature, the aim is to summarize early and late skills, which in our proposal also serves the purpose of the time task. Time-shifting jobs are effective in place of constant numbers. Over time, jobs are being processed at a high number of jobs, which are overcrowded and overcrowded. Or, at the same time, two unnecessary parallel monthly jargon aimed at reducing the burden of delayed and delayed work and preventing time off work. Of these, the "time of preparation depends on the processing of work" and the

"limited access to ours" in the Paradise Months of Paradise. The memory comes to mind. A multi-objective genetic meta-algorithm is developed for it. For the purpose of comparing small and medium sizes and showing the auras function, the model will also be solved by the E-method, the E-constraint algorithms and compared with those of the genetic algorithms.

2. Research Methods

In this case, the periodic table of the number of parallel months is examined. A set of n workstations,, n, 0, 2, N =, on a set of m,, m, 1,2, M =, which are processed in parallel. And each month he is able to process or work. The processing time for each job on my account is different. In fact, the processing time on ours is not related to the type of work but to the financial one, and there is no relationship with the processing times on my months. There are times when the job depends on the job. Each job has its own set of other tasks, a time of its own, and what it is related to. The purpose, the timing of these tasks was separated from the other on the one-month basis so that the immediate and delayed tasks were separated from one side and the other.

Myths about me
The following are considered in the following assumptions:

- Mai are countless with varying degrees and are paralleled. Every job includes hours on the month.
- Jobs have a different access time to my job where everyone is available.
- Unless otherwise permitted in the workplace, if processing begins on a month, the processing continues without any work being done.
- From our regular work and for authorized taxpayers, our full time job has been effectively accessed and there is no possibility of our being affected.
- There is one processing job per month (you cannot do two things at the same time).
- Jobs had a time of preparation depending on the air.
- Includes paper parameters from processing times, months, productivity, and trends that are timely and delayed.
- Virtual work is any type of debt. This work is often processed on a full-time basis. The processing time of each task is axis and it does not need to start in the process of processing.

The input values that must be emitted at the beginning of the model are:

A little bit about work$j.k = 1.2. \ldots . n$	$j.k$
A little about us $i = 1. \ldots . m$	i
Time to work j	r_j
Standard processing time j	p_j
Producer of j work	d_j
The fastest processing of work j on the month of i	v_{ij}
Depending on the job application and the time k to be performed after job j on month i	s_{ijk}
Quick dealing with things	α
Any business related to other things	β
If it is possible to process type work on the month type 1, in any case 0	a_{ij}
	M

One and only

Working time j	C_j
Jm start time	S_j
The time delay for my work j is equal to C_i-d_j if C_i-d_j> 0 and is more equal in any case.	T_j
The time delay of my working time j is equal to d_i-C_j if d_i-C_j> 0 and is equal in any case.	E_j
Battery life is equal to the amount of work I do on my k-processor month and in any case.	x_{ij}
Battery life is equal to or greater than if I processed after j work.	y_{jk}

4.2. Two-dimensional mathematical model

$Min\ Z_1 = \sum_{i=1}^{n} \alpha E_i + \sum_{i=1}^{n} \beta T_i$	(1)
$Min\ Z_2 = \sum_{j=1}^{n} C_j$	(2)
Subject to:	
$\sum_{i=1}^{m} x_{ij} = 1\ \forall\ j$	(3)
$\sum_{k=1}^{n} y_{jk} = 1\ \forall\ k$	(4)
$\sum_{k=1}^{n} y_{jk} \leq 1\ \forall\ j$	(5)
$x_{ij} \leq a_{ij}\ \forall\ i.j$	(6)
$y_{jk} \leq 1 - x_{ij} + (1 - \sum_{i \neq i} x_{ik})$	(7)
$S_n \geq \sum_{i=1}^{m} s_{jki}\, x_{ik} + C_j - M(1 - y_{jk})\ \forall\ j.i.k$	(8)
$S_k \geq R_k\ \forall\ k$	(9)
$C_j = S_j + \sum_{i=1}^{m} \frac{p_i}{v_{ij}} x_{ij}\ \ \forall\ j$	(10)
$C_i + E_j - T_j = d_j\ \forall\ j$	(11)
$y_{ij}\, x_{ij} = 0\ or\ \forall\ i.j.k$	(12)

The goal of each (3) target is to eliminate the immediate and the late. In this formula, the values of the torsion bars and T for the type work are obtained by any of the following:
T_j = max⟦(0; C_j-d_j)⟧
E_j = max⟦(0; d_j-C_j)⟧

The target function in each (2) separates the sum of time periods. Limit (3) the hair to do each job within a month.
Limitation (4) It is possible to do every job after another, the first is to do more work.
Limit (1) indicates that there is at most one job after each job.

Restriction (1) indicates that one month can do what it can to accomplish that task. As stated in the input parameter of the model, if parameter j is available for the month of type i, the parameter ai is valid and valid. The possibility of processing j-type work on the type-i month depends on the type of j-M processing job. M is a subset of our directory (M), which contains the month you can process the type j work. However, it limits the model value to the type i for the month of type i and to the value of to the value of Xi, including the value of the input parameters and the input parameters. Suppose that the value of ai is not Xi..

Restriction (7) indicates that two things can be done in one month if they can

Limits (8) to (1) indicate when the work begins. Restricts (1) the working time.

Limits (1) Calculate the time delay and delay of jobs. In fact, the boundary is the expression of the relation between time zero, early time, late and productive time, and the relationships with the constant value j = 1 + j = j = 1 ^ j = 1

= j = 1 ^ j = 1 = j = 1 ^ Has 〖βT_j〗 … One of the assumptions contained in the Model Specifications is the permissibility of monthly payments. ﾑ Assume and take account of the limitations set forth herein, when processing your business on a month-to-month basis. Your goal. It is important to keep in mind that the working time from the beginning of the working period to the working time will be approximately the same as the working time. At the earliest or later times, the work and subsequent work will become more attainable. So our current business boom can be a useful model. Limitation (12) is the stated battery life of the terminals.

Model rentals

For the purpose of examining the model of ordinary mathematics in this context, the subjects presented in the calculations were computed. Zhou and Jodi (1) A mathematical model for the number of parallel parallel months with the objective of minimizing the weight of the early and late time zones with respect to the time-dependent time series. They did not compete with the models in the literature in the literature. On July 6 and 2, the sample batch was given a job and three months for which the answer was yes. Therefore, it is possible to examine the model function described in this article using the tool described above. It does this by inserting the relevant mouse inputs into a normal model and running it in one of the related software. In the case where the normal model group had the same prototype as the prototype model shown by Zhou and Jedi, it could have the same three-dimensional model. Specifically, the sample data is shown in Tables 4 and 4.

Since each workflow is processed on a different month to operate the data model, the same data can be compared with the normal data. For this purpose, one of the changes in the parameters of the Zhou Heidi should be applied to authentication is to the right. This is the Table 1, the processing time of job i on the car to the processing time of each job and the processing speed of work by each machine separately Finally. For these tasks equals the total processing of jobs, and assign the most processed jobs to each month

Table 1: Processing times

	J_1	J_2	J_3	J_4	J_5	J_6	J_7	J_8
M_1	0.73	1.19	1.12	0.98	0.63	1.14	1.26	1.38
M_2	1.15	1.06	1.21	1.07	1.13	0.90	0.84	0.88
M_3	0.80	0.91	0.82	0.74	1.20	0.92	0.45	0.79

Table 1: Processing Procedures

	J_1	J_2	J_3	J_4	J_5	J_6	J_7	J_8
M_1	1.36 9863	0.84 0336	0.89 2857	1.02 0408	1.58 7302	0.87 7193	0.79 3651	0.72 4638
M_2	0.86 9565	0.94 3396	0.82 6446	0.93 4579	0.88 4956	1.11 1111	1.19 0476	1.13 6364
M_3	1.25	1.09 8901	1.21 9512	1.35 1351	0.83 3333	1.08 6957	2.22 2222	1.26 5823

S The parameter s in the normal model is the three-component parameter and in the model presented by Zhou and the double binary. The difference comes from the fact that in their study, they are dependent on our job schedule without regard to our type. To fit the normal model to the data, the third dimension values of the parameter s are included in table (1). Here are the times of the month for all of us. Three parameters of the parameter are considered equal to 1. If so, the parameter that comes through the parameter is for each of us to process on our own. Then, the parameters for the s parameters and my mode for selecting the input parameters and the parameters in the input and output modes are random.

Table 3: Food products and early and delayed works

	J_1	J_2	J_3	J_4	J_5	J_6	J_7	J_8
The cost came early	3.31	1.26	0.76	3.74	3.79	4.79	1.12	4.00
The cost is late	3.31	1.26	0.76	3.74	3.79	4.79	1.12	4.00
Timely delivery	12.95	9.02	13.86	15.03	15.03	11.49	11.44	16.45

Table 4 - Time of our month

	J_1	J_2	J_3	J_4	J_5	J_6	J_7	J_8
J_1	0.44	1.11	1.29	1.21	1.11	1.02	0.91	0.77
J_2	1.23	0.88	1.16	1.07	1.16	1.22	0.89	1.13
J_3	0.91	1.05	0.78	1.10	0.98	0.74	1.13	1.08
J_4	1.45	0.88	1.05	1.09	1.13	1.16	0.88	1.12
J_5	0.98	0.92	0.85	0.91	1.34	0.85	1.13	1.21
J_6	1.26	1.10	1.09	1.30	0.69	0.96	1.09	1.24
J_7	0.82	1.17	0.59	0.89	1.13	1.14	0.90	0.65
J_8	1.22	0.95	1.14	1.08	1.16	0.73	1.27	0.90

A simple model for the test machine mentioned is produced using the Lingo 9.0 software and the answer to the question. The target value is then equal to the amount of work done on us:

M1, J5 and J7 jobs, M2, J3, J6 and J8 jobs, M3, J1, J2 and J4 jobs. The time slots are also shown as follows: 16,45, 11,49, 13,83, 11,44, 15,03, 9,02, 12,92 and 15,0,3.

For the most part, I think only if they are in the NP-hard domain at some point in time. The point of departure is not limited to the types of events that may be appropriate at the appropriate time. The application of this concept in solving scheduling problems in class NP-hard, are very effective so that solve the problems of this nature requires heuristic algorithms and meta-heuristic is able within a reasonable time to the optimum gain (Javadian et al., 1391 Nothing but man and woman;). لگ For 8 months, they can have a specific time frame Eh, cry. For example Article 1 | ┤ | ∑▒C_i Mode Contains 1 | ┤ | 〖〖Is w_i C〗 _i. His theory is that 1 | ┤ | ∑▒C_i W C1 | ┤ | 〖〖W_i C〗 _i reads them. Then there is a chain of fixed time points in which my particular axes are related to one another. Every other time period, such as the purposeful type and the type of work I do, are the most effective things to do (Edo, 2). In this section, the time series of the non-parallel parallel months with the Early and Subsequent Weight Lists and the Working Times are reviewed. Tari and Farran (1) have highlighted the particular brain in my research work and its NP-hardness. However, the case study is also considered as an NP-hard object. Therefore, for large sizes using the model of mathematics presented here, it is not possible at the ideal time

3. Results

3.1 Normal Transaction Parameter Parameter

As mentioned above, in order to further the function of normal traffic, the input parameters of these states are discussed. The levels of NSGA-II and NRGA parameters are shown in Tables 5 and 6, respectively. The numbers in the tables have been taken into account by the method, method, or memory of the players

Table 5: Levels of NSGA-II Chain Parameters

Factors	Levels		
	Level 1	Level 2	Level 3
nPop	150	200	250
P_c	0.9	0.95	0.97
P_m	0.1	0.15	0.2
MaxIt	150	200	250

Table 6: Levels of NRGA Chain Parameters

Factors	Levels		
	Level 1	Level 2	Level 3
nPop	150	200	250
P_c	0.85	0.9	0.95
P_m	0.05	0.1	0.15
MaxIt	100	150	200

Considering my goals for the number of jobs and salaries, I did a simple job per day and paid more for my diabetes. Therefore, 3 points are assigned to each test. It should be borne in mind that the parameters for a given parameter here are the base of the ideal answer that a parameter would provide in most calculations. Since it is a type of "human chipper" type, its S / N path is considered as follows:

$$\frac{S}{N} = -10\log\,(RPD)^2$$

In the S / N study, the percent deviation was also used as a common benchmark for evaluating Auras. The RPD values quoted from Equation (14) indicate that the parenting method is substantially different from the parent of the sleeper.

$$RPD = \frac{A\,lg_{sol} + Min_{sol}}{Min_{sol}} \times 100$$

In relation (14), A lgsol represents the results obtained from the execution of the traffic theory for each experiment and Minsol represents the best response obtained for each experiment.

The arrays presented in the method for performing the experiments are described in terms of number of levels. It should be borne in mind that the number of levels of hair will be significantly increased to make the number of trials. In this case, the design migrants are the experiments given and given the standard arrays of arrows, the L9 arrays are the experimental design. The design of the experiment with the arrays of the L9 arrays is shown in Table 7.

Table 7: Array of experiment with L9 arrays

A	B	C	D
1	1	1	1
1	2	2	2
1	3	3	3
2	1	2	3
2	2	3	1
2	3	1	2
3	1	3	2
3	2	1	3
3	3	2	1

Normal sublimation runs are performed for each test and the S / N point is calculated by Minitab 14.1 software. The S / N value found for each of the NSGA-II and NRGA entities is shown in Figures 1 and 2, respectively, and the input parameters are shown here.

Image 1: NSGA-II Chain S / N Chart

With respect to image1 equivalent value for NSGA-II charset parameters for levels A, 2, B, 2, C; 1, D; 1, the chars have a value value.

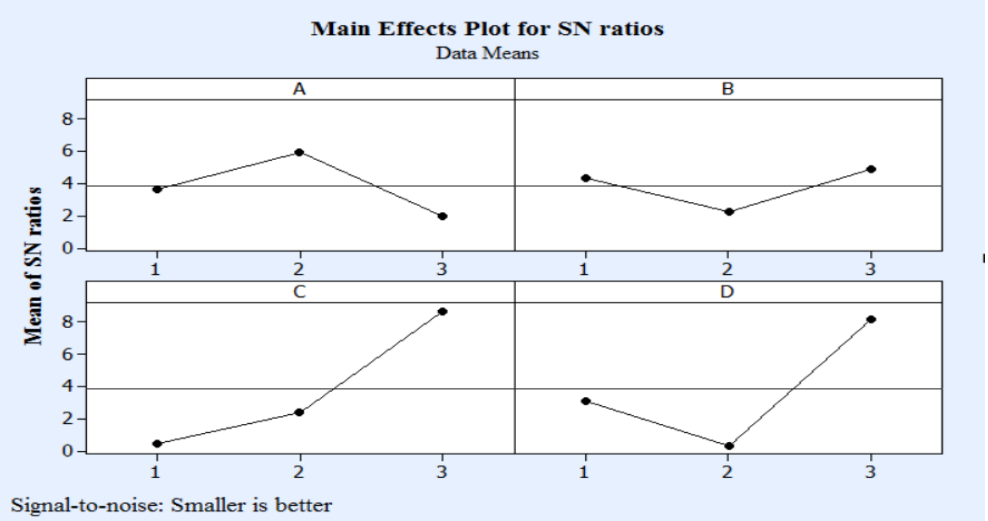


Image 2: NV GA Chain Parameters S / N

Depending on one value, the values for the NRGA parameter values for levels A, 2, B, 3, C, 3, D; 3 are the values of the input values.

Table 8: Levels for parameters

Solving methods	Parameters	Optimum amount
NSGA-II	*nPop*	200
	P_c	0.95
	P_m	0.1
	MaxIt	150
NRGA	*nPop*	200
	P_c	0.95
	P_m	0.15
	MaxIt	200

3.2 Why restrictive method - for 1 month

At the present time, the constraint method - 1 is a delayed and delayed weight loss method with the objective of considering the time and time required to do so. My mathematical expression is as follows:

$$Minimize\ Z_1 = \sum_{i=1}^{n} \alpha_i E_i + \beta_i T_i \qquad (15)$$

Subject to:

$$\sum_{j=1}^{n} C_j \leq \varepsilon$$

By adding the constraints outlined in the Coded Model, my model is obtained by using the Lingo software. The results for my data are still available.

Here are a few examples to illustrate the model behavior and the performance of the learned algorithms for a single study. This NP-hard article therefore cannot confine itself to the big ones because of the de-limiting method. The numerical data of this example are presented in Table 9.

Table 9: Sample article produced with work and months (long hours)

j	1	2	3	4
P_j	5	4	8	8
R_j	2	0	1	2
D_j	13	7	11	10
α_j	6	2	2	5
β_j	15	8	11	7

	Machine 1	Machine 2
Speed	4	2

The following values in the first run are derived from the first sample article by the now restricted method:

$$C_{j_1} = 33$$
$$TET_1 = 294$$

The following limitations should be added to the article:

$$C_{j_1} \leq 33 - \varepsilon$$

Assumed to be equal to the present value, the following values are obtained in the second run of the first sample article by the restricted method:

$$C_{j_2} = 32$$
$$TET_2 = 297.5$$

This process should not be postponed until a reasonable answer is given. The values obtained by the solid approach for the first type of calculation are shown in Table 10:

Table 10: Fractional points of the currently restricted method

Round	Number of C_j	Number of TET	Efficiency	Time(Hour: Minute: Second)
1	33	294a	Efficient	00:12:13
2	32	297.5a	Efficient	00:11:15
3	31	311a	Efficient	00:09:28
4	30	327.5a	Efficient	00:08:48
5	28	430a	Efficient	00:11:03
6		Infeasible		
Total run time				00:52:47
		a Global optimum		

We use customer-centric learning environments to measure their performance (in terms of time and response) for two large and large papers.

The NSGA-II algorithm first achieved the following points:

Table 11: The first line of the points of view

Solution no.	Number of C_j	Number of TET
1	33	294
2	32	301
3	28	430

Improvement in the context of frames also continues to show that the target values for unsafe sleeping are shown in Table 12.

Table 12: Frames of NSGA-II Frames

Solution no.	Number of C_j	Number of TET
1	33	294
2	32	297.5
3	31	311
4	30	327.5
5	28	430

Similarly, the points found in the three frameworks for the NRGA algorithm are shown in Table 13.

Table 13: Frames points from the NRGA framework

Solution no.	Number of Cj	Number of TET
1	33	294
2	32	297.5
3	31	311
4	30	327.5
5	28	430

It appears that all of the available sleeps obtained by the current restrictive method have been normalized. NSGA-II and NRGA terminals only
Time 2: 1 and 2: 3 are simply divisible into three points, which are in line with the current approach that was achieved at 2: 3.

3.3 Evaluation of the Australians' answers

1) Ideal bed base
From my point of view, I look at the framework of the goals that are closer to the bottom line or the bottom line of the answer. Reads. The basis of the ideal answer is through the following equation:

$$MID = \frac{\sum_{i=1}^{n} c_i}{n} \qquad (16)$$

In this respect, n is the number of unsuitable answers that have been reached, and ci is more distant from the set of points of interest that is obtained from the relation (f_1i ^ 2 + f_2i ^ 2 + ⋯ + f_ ^ 2 + f_ik ^ 2). In this relation, the axis of fki is the k value of the target in the frame vector i. This means that for each article, the lower the amount of fat you have, the better it will be. 3 شكل Indicates the MID mark in the form.

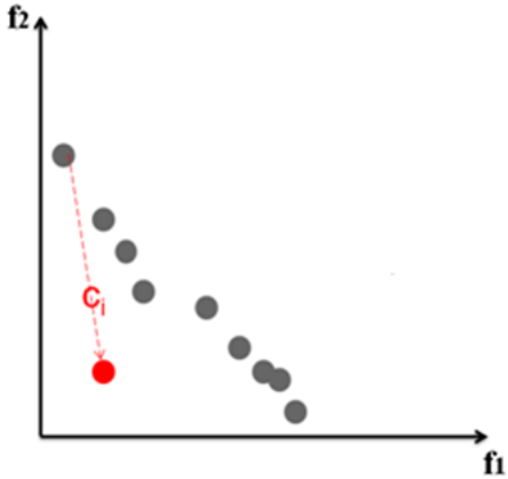


Image 3: The basement of the ideal bed in the hot spot

2) The rate of diabetes for two purposes simultaneously

The additional value of obtaining the sum of the sums of each of the functions of the relation (٤8) is:

$$RAS = \frac{\sum_{i=1}^{n} \left|f_{1i}(x) - f_{1i}^{best}(x)\right| + \left|f_{2i}(x) - f_{2i}^{best}(x)\right|}{n} \qquad (17)$$

The value of each indicator area is the number of sleeps.

3) The individual sleeping bags
The higher the value, the higher the results obtained from the human process (Bahaman and Faran, 1). The following is the following relation:

$$SNS = \sqrt{\frac{\sum_{i=1}^{n} (MID - c_i)^2}{n-1}} \qquad (18)$$

4) Hours (QM)
This represents the percentage of each desired answer from each point in the map.

5) Time of execution
The timing of the execution is also considered as a benchmark. Then Through the standard skills of my hard-coded brainstorming paper, are listed in Table 14 of the Skills for the Origin of Testing.

Table 14: Computational Results of Criteria for Comparing Algorithms

Size		*NSGAII*					*NRGA*				
m	*n*	*QM*	*MID*	*RAS*	*SNS*	*TIME*	*QM*	*MID*	*RAS*	*SNS*	*TIME*
4	10	0.081197	1037.831	9.544511	1182.112	4688.8822	0.918803	890.477	7.686941	897.7692	4718.0556
	15	0.012346	4303.089	24.47248	4683.737	4704.562	0.987654	3441.664	19.12484	3439.132	4741.1211
	20		5791.421	26.36121	6130.688	4723.0167	1	4586.488	20.48079	4604.825	4754.5769
	25	0	9354.685	34.03021	12293.23	4734.6134	1	6070.265	21.36137	6139.58	4761.1561
	30	0	10647.86	33.49246	11357.17	4751.5348	1	7726.86	24.46717	7988.31	4767.2881
6	10	0.253968	1337.307	10.64396	1381.615	4727.0573	0.746032	1377.779	11.62744	1393.898	4756.5829
	15	0.222222	2160.621	12.34515	2287.476	4739.8257	0.777778	1755.384	10.31398	1750.917	4764.4929
	20	1	4589.013	18.65069	5040.445	4753.036	0	3941.271	17.51639	3958.625	4782.718
	25	0.666667	8859.341	31.15396	9341.146	4772.2831	0.333333	6350.9	22.9041	6450.578	4799.181

	30	0	14085.12	45.20465	16865.59	4787.541	1	9923.591	29.42834	10022.45	4816.4002
8	10	0.433333	6834.198	14.2471	16721.35	4824.2315	0.566667	5323.654	18.2391	18302.27	4832.157
	15	0.166667	9982.16	31.2781	14756.29	4812.1343	0.833333	8635.128	21.28732	15024.26	4834.2847
	20	0	5814.288	27.2516	15735.18	4714.2385	1	4345.389	26.28723	16847.29	4712.489
	25	0.377778	7894.209	16.1782	16831.4	4671.8765	0.622222	7654.239	21.2982	17927.03	4673.2009
	30	0.098778	7391.138	14.2783	17273.32	4711.9816	0.901222	6534.289	15.2641	18723.91	4734.1655
10	10	0.187778	8457.232	15.2716	16347.82	4734.1783	0.812222	7864.125	13.7217	17374.09	4746.1498
	15	0.566666	1024.278	21.2673	18723.18	4803.1763	0.433334	9873.285	16.56187	19854.66	4728.1456
	20	0	7879.125	9.544511	1182.112	4738.2766	1	7651.29	23.5348	18734.49	4803.2735
	25	0	9976.267	24.47248	4683.737	4764.2984	1	9861.274	22.17645	18725.92	4673.1893
	30	0	8345.276	26.36121	6130.688	4811.3765	1	7882.302	16.23631	16736.97	4834.6981
12	10	0.093333	11234.87	27.5127	16347.82	4734.2119	0.906667	10230.44	32.12831	19873.62	4832.4933
	15	0.111114	9834.128	31.3561	18723.17	4745.1767	0.888886	8762.198	27.98721	17937.75	4782.1674
	20	0	7856.275	18.2651	17832.94	4824.2813	1	6983.257	19.4714	18873.5	4819.9341
	25	0	9654.125	26.7219	16783.87	4834.2876	1	8304.278	26.52198	18984.29	4853.1976
	30	0	9768.345	17.2612	16036.72	4784.1983	1	8345.189	24.1783	19450.37	4792.1898

Normal households based on home skills are shown in Figures 4 to 8.

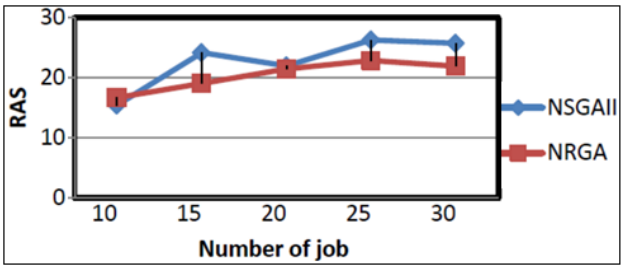


Image 4: Outlook of the essay article on RAS

With respect to the image 4 NRGAs, NSGAII is also fully RAS in place of human, and now has a home-based advantage.

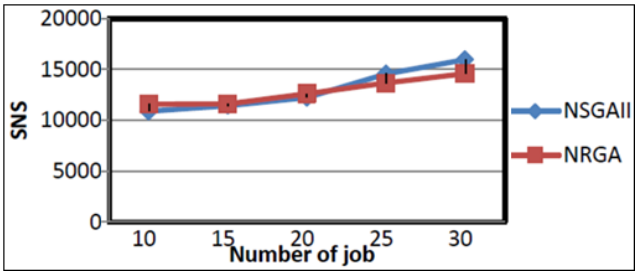


Image 5: The Ultimate Consequences of the Articles on SNSs

Considering the image 5 NSGAII ports of NRGA in SNSs 1 and 2 are human, and now they are home-based instead of working.

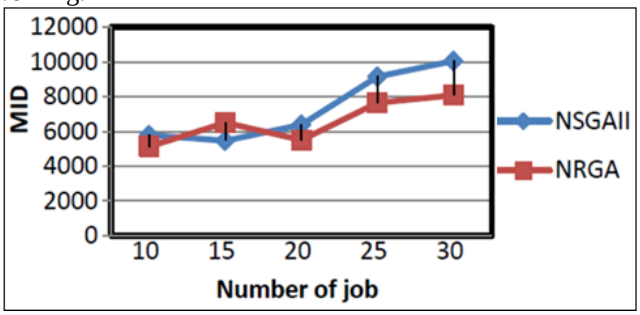


Image 6: Aurora's article on MID paths

Considering the image 6 NRGA ports of the NSGAII in the MID domain is fully human, or in the context of the NSGAII port of the NRGA.

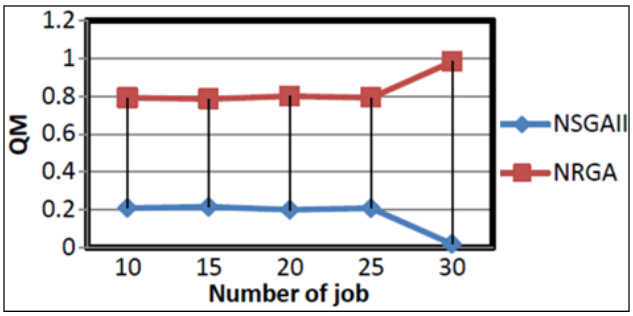


Image 7: Viewpoints of the essay article on QMs

Considering the image 7 NRGA ports of the NSGAII in QM location is fully human.

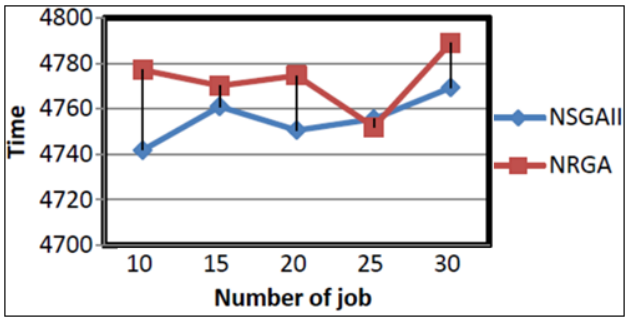
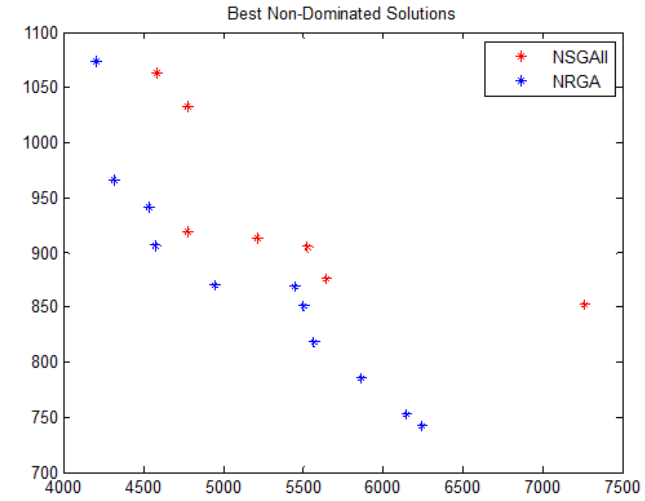


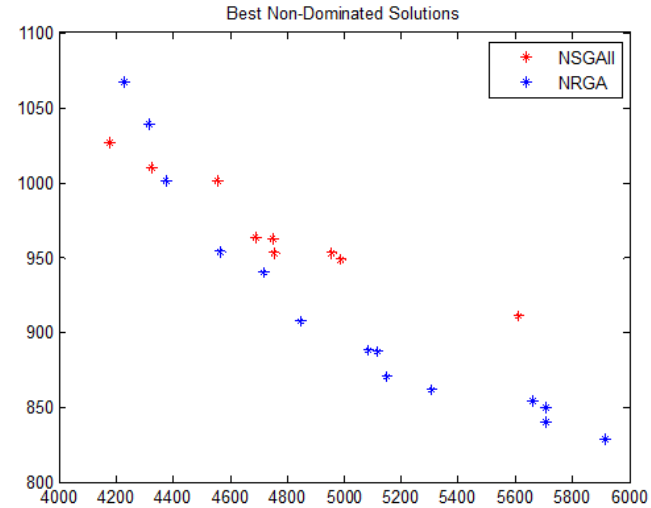
Image 8: View the story of Aurora's essay on TIME

With respect to the image 8-bit NSGAII, the NRGA also delivers audio to the frame in the fastest time possible and disconnects it.

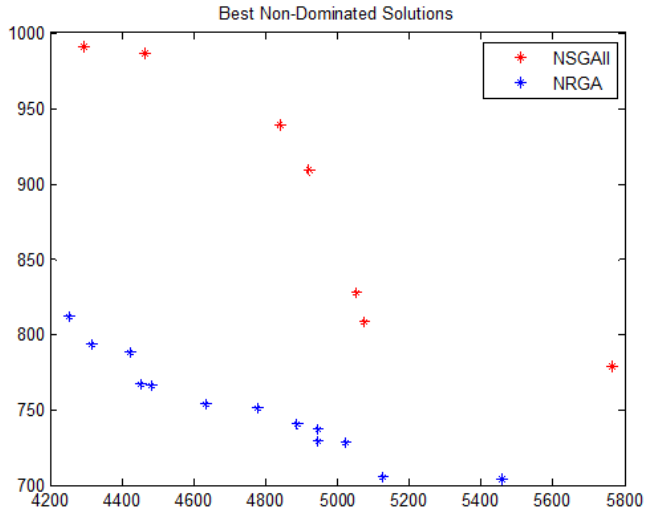
Also image9 Workflow archives executed by the executors in the mouse 8, 13, 18, 23



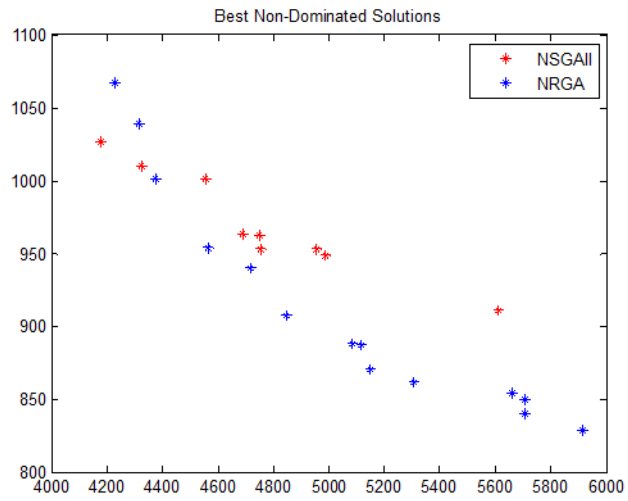
8#



13#



18#



23#

image9 - View the Archive of the article
image9 shows that the NRGA is separated into the NSGA-II where the human frame is located, and the difference is in the results obtained in the simulated work.

The point here is that each of the methods of evaluation is a migration method. To answer this question first comes up with the viewer that he was the only one in the Aurora study and that his or her strengths were evaluated. For example, if the target of the transceiver in the frame with a human head or closer to the target should be the MID path or if the target of the transmitter is to reach the high frequency. Both the MID and the RAS methods, the result of the other methods, are not fully automated and ultimately based on the specific merits of the proposed method.

Figure 2 shows the evaluation competencies for the two NSGAII and NRGA states presented in Table 15, which are based on MID, SNS, and QM skills. Whereas the NSGA-II algorithms have provided the process for time and RAS competencies. However, the effect of the study and study of Aurora is statistically significant. As mentioned above, there are three types of variance.

Table 15: Aurora Study Skills Menu

Note
The model in this study is considered a matter of scheduling parallel machines irrelevant considering the limitations of the installation time depends on the processing sequence work and available to work at different times and limited access to the car with the aim of minimizing the time earliness and tardiness by weight of the total and minimum Customizing a variety of workloads and providing a new mathematical model for it. Given the results, this effective agent in the clear ways available is unobtrusive and time consuming in the field of time. Considering the small number of scholarships available in the literature, it is hoped that the latter will be readily available in the near future. According to what is in industrial environments such as factories Food and Chemical observed, taking into account the time sequence-dependent setup and the time available to work for such environments is important and taking into account the fixed cost and variable for machines that The human brain is coming to a close. The model discussed in

this year's publication is a complete model that is applicable to many applications. Given the absence of two cabins, it is imperative to adopt a “good” or “diabetic” cabaret, caterpillar, or American haircut. Therefore, for a client, the service is optimized for the client. On the other hand, this article has been useful for some time and is based on NP-Hard, which has increased the number of jobs and benefits through its software. You may have to look at applications and applications, and with the basic goals of disaster recovery, in addition to providing a two-pronged approach to NSGA-II. It was proposed fuzzy. Individuals who have learned to compete with those existing in the literature have been evaluated using their own set of skills and perspectives. Therefore, this year's NSGA-II and NRGA transactional methods for diabetes were recalled. In order to illustrate the efficiency of the core model and the ordinary individual chord in large areas, the metric was expanded in size using the NSGA-II and NRGA chords. Finally, from the evaluation points of the new randomization algorithms and the statistical method selection efficiency were used.

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