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# LAMPIRAN

## LAMPIRAN 1

## DATA HASIL PENGAMATAN

DAFTAR ANTRIAN KENDARAAN BERMOTOR RODA DUA DI SPBU PANGHEGAR  
(UNIT1)

NO	JAM DATANG	JAM DILAYANI	JAM KELUAR	NO	JAM DATANG	JAM DILAYANI	JAM KELUAR
1	7:45:00	7:45:00	7:45:26	40	8:14:30	8:17:06	8:17:20
2	7:45:19	7:45:30	7:45:45	41	8:16:40	8:17:57	8:18:14
3	7:46:10	7:46:25	7:47:30	42	8:16:48	8:18:19	8:18:36
4	7:46:33	7:47:30	7:47:49	43	8:18:41	8:19:42	8:20:33
5	7:47:40	7:48:28	7:48:45	44	8:20:05	8:20:44	8:21:05
6	7:48:00	7:48:54	7:49:07	45	8:21:13	8:21:57	8:22:35
7	7:48:40	7:49:45	7:50:10	46	8:23:30	8:23:35	8:23:51
8	7:49:40	7:50:19	7:50:35	47	8:24:11	8:24:25	8:24:49
9	7:50:25	7:51:20	7:51:43	48	8:24:27	8:24:58	8:25:22
10	7:50:56	7:51:51	7:52:30	49	8:25:40	8:26:07	8:26:25
11	7:51:57	7:53:05	7:53:35	50	8:25:50	8:26:31	8:26:47
12	7:52:40	7:53:40	7:54:10	51	8:26:25	8:27:23	8:27:41
13	7:54:53	7:55:00	7:55:30	52	8:26:54	8:27:48	8:28:09
14	7:54:55	7:55:44	7:56:12	53	8:27:20	8:28:50	8:29:10
15	7:55:31	7:56:50	7:57:05	54	8:27:43	8:29:18	8:29:37
16	7:55:50	7:57:14	7:57:30	55	8:29:18	8:30:07	8:30:40
17	7:56:55	7:58:05	7:58:25	56	8:29:20	8:30:50	8:31:08
18	7:57:25	7:58:30	7:59:18	57	8:30:55	8:32:05	8:32:20
19	7:58:34	7:59:50	8:00:05	58	8:31:29	8:32:30	8:32:57
20	7:58:44	8:00:14	8:00:36	59	8:32:30	8:33:25	8:34:00
21	8:00:55	8:01:21	8:02:00	60	8:32:45	8:34:05	8:34:31
22	8:01:20	8:02:27	8:03:10	61	8:33:00	8:35:08	8:35:21
23	8:03:39	8:04:12	8:04:28	62	8:33:03	8:35:28	8:35:48
24	8:04:00	8:04:40	8:05:02	63	8:33:10	8:36:40	8:37:06
25	8:05:23	8:05:45	8:06:03	64	8:33:30	8:37:10	8:37:40
26	8:05:30	8:06:10	8:06:33	65	8:36:04	8:38:19	8:39:04
27	8:06:38	8:07:05	8:07:22	66	8:36:10	8:39:10	8:39:58
28	8:06:43	8:07:27	8:07:50	67	8:37:00	8:40:25	8:40:51
29	8:07:27	8:08:33	8:08:50	68	8:40:10	8:40:55	8:41:30
30	8:08:08	8:08:56	8:09:15	69	8:41:00	8:42:21	8:42:39
31	8:08:25	8:09:45	8:10:05	70	8:41:57	8:42:43	8:43:10
32	8:08:40	8:10:10	8:10:27	71	8:44:18	8:44:18	8:45:10
33	8:10:45	8:11:25	8:11:58				
34	8:10:50	8:12:09	8:12:32				
35	8:11:37	8:13:00	8:13:20				
36	8:12:00	8:13:26	8:13:40				
37	8:12:20	8:14:15	8:15:05				
38	8:14:00	8:15:17	8:16:00				
39	8:14:15	8:16:40	8:16:57				

**DAFTAR ANTRIAN KENDARAAN BERMOTOR RODA DUA DI SPBU PANGHEGAR  
(UNIT 2)**

NO	JAM DATANG	JAM DILAYANI	JAM KELUAR
1	7:45:00	7:45:16	7:45:30
2	7:45:20	7:45:42	7:45:57
3	7:45:30	7:46:10	7:46:42
4	7:46:27	7:47:36	7:47:59
5	7:46:50	7:48:03	7:48:30
6	7:47:53	7:48:45	7:49:40
7	7:48:54	7:50:47	7:51:15
8	7:50:33	7:51:40	7:52:00
9	7:50:34	7:52:07	7:52:30
10	7:53:00	7:53:13	7:53:36
11	7:53:13	7:53:44	7:54:00
12	7:53:13	7:54:14	7:54:35
13	7:54:23	7:55:10	7:55:29
14	7:54:25	7:55:59	7:56:22
15	7:54:42	7:56:27	7:56:49
16	7:56:13	7:57:45	7:58:00
17	7:56:13	7:58:05	7:58:50
18	7:57:30	7:58:59	7:59:15
19	7:59:20	7:59:56	8:00:00
20	7:59:22	8:00:28	8:00:47
21	8:01:38	8:02:10	8:02:29
22	8:02:29	8:03:20	8:03:48
23	8:03:32	8:04:14	8:05:00
24	8:03:49	8:05:09	8:05:28
25	8:06:00	8:06:10	8:06:45
26	8:06:01	8:06:50	8:07:13
27	8:06:02	8:07:20	8:07:49
28	8:07:40	8:08:43	8:09:19
29	8:07:42	8:09:25	8:10:10
30	8:08:43	8:10:15	8:10:39
31	8:09:54	8:11:27	8:11:45
32	8:10:35	8:11:50	8:13:07
33	8:10:36	8:13:14	8:13:42
34	8:10:45	8:14:33	8:14:55
35	8:12:50	8:15:00	8:15:18
36	8:13:33	8:15:30	8:15:57
37	8:14:10	8:16:33	8:17:09
38	8:14:41	8:17:15	8:17:50
39	8:16:52	8:17:59	8:18:29
40	8:18:55	8:19:22	8:19:45
41	8:19:20	8:19:49	8:20:20

NO	JAM DATANG	JAM DILAYANI	JAM KELUAR
42	8:20:00	8:20:40	8:21:06
43	8:21:45	8:22:33	8:22:59
44	8:22:35	8:23:08	8:23:35
45	8:23:07	8:23:48	8:24:12
46	8:24:20	8:24:54	8:25:14
47	8:24:30	8:25:49	8:25:59
48	8:26:00	8:26:20	8:26:39
49	8:26:04	8:27:25	8:27:50
50	8:26:05	8:27:57	8:28:15
51	8:26:05	8:28:24	8:28:41
53	8:27:00	8:29:44	8:30:15
54	8:28:00	8:30:19	8:30:54
55	8:29:51	8:31:27	8:31:59
56	8:31:12	8:32:14	8:32:39
57	8:31:18	8:32:48	8:33:05
58	8:31:45	8:33:51	8:34:30
59	8:32:35	8:34:40	8:35:39
60	8:34:14	8:35:55	8:36:17
61	8:34:17	8:36:55	8:37:25
62	8:34:47	8:37:29	8:37:54
63	8:35:05	8:38:30	8:38:40
64	8:35:20	8:39:05	8:39:40
65	8:35:27	8:39:45	8:40:10
66	8:39:25	8:40:21	8:41:10
67	8:40:00	8:42:07	8:42:43
68	8:42:00	8:42:55	8:43:25
69	8:42:05	8:43:30	8:43:47
70	8:43:20	8:44:35	8:45:10
71	8:43:21	8:45:18	8:45:47
72	8:43:42	8:45:58	8:46:10
73	8:44:25	8:47:19	8:47:56
74	8:44:36	8:48:03	8:48:26
75	8:48:03	8:48:30	8:49:11

## LAMPIRAN 2

## Unit Pelayanan 1

NO	t	m
1	0:00:00	0:00:26
2	0:00:19	0:00:15
3	0:00:51	0:01:05
4	0:00:23	0:00:19
5	0:01:07	0:00:17
6	0:00:20	0:00:13
7	0:00:40	0:00:25
8	0:01:00	0:00:16
9	0:00:45	0:00:23
10	0:00:31	0:00:39
11	0:01:01	0:00:30
12	0:00:43	0:00:30
13	0:02:13	0:00:30
14	0:00:02	0:00:28
15	0:00:36	0:00:15
16	0:00:19	0:00:16
17	0:01:05	0:00:20
18	0:00:30	0:00:48
19	0:01:09	0:00:15
20	0:00:10	0:00:22
21	0:02:11	0:00:39
22	0:00:25	0:00:43
23	0:02:19	0:00:16
24	0:00:21	0:00:22
25	0:01:23	0:00:18
26	0:00:07	0:00:23
27	0:01:08	0:00:17
28	0:00:05	0:00:23
29	0:00:44	0:00:17
30	0:00:41	0:00:19
31	0:00:17	0:00:20
32	0:00:15	0:00:17
33	0:02:05	0:00:33
34	0:00:05	0:00:23
35	0:00:47	0:00:20
36	0:00:23	0:00:14
37	0:00:20	0:00:50
38	0:01:40	0:00:43
39	0:00:15	0:00:17
40	0:00:15	0:00:14

NO	t	m
41	0:02:10	0:00:17
42	0:00:08	0:00:17
43	0:01:53	0:00:51
44	0:01:24	0:00:21
45	0:01:08	0:00:38
46	0:02:17	0:00:16
47	0:00:41	0:00:24
48	0:00:16	0:00:24
49	0:01:13	0:00:18
50	0:00:10	0:00:16
51	0:00:35	0:00:18
52	0:00:29	0:00:21
53	0:00:55	0:00:20
54	0:00:23	0:00:19
55	0:01:35	0:00:33
56	0:00:02	0:00:18
57	0:01:35	0:00:15
58	0:00:34	0:00:27
59	0:01:01	0:00:35
60	0:00:15	0:00:26
61	0:00:15	0:00:13
62	0:00:03	0:00:20
63	0:00:07	0:00:26
64	0:00:20	0:00:30
65	0:02:34	0:00:45
66	0:00:06	0:00:48
67	0:00:50	0:00:26
68	0:03:10	0:00:35
69	0:00:50	0:00:18
70	0:00:57	0:00:27
71	0:02:21	0:00:52

Keterangan :

t = waktu antar kedatangan

m = waktu pelayanan

### Unit Pelayanan 2

NO	t	m
1	0:00:00	0:00:14
2	0:00:20	0:00:15
3	0:00:10	0:00:32
4	0:00:57	0:00:23
5	0:00:23	0:00:27
6	0:01:03	0:00:55
7	0:01:01	0:00:28
8	0:01:39	0:00:20
9	0:00:01	0:00:23
10	0:02:26	0:00:23
11	0:00:13	0:00:16
12	0:00:00	0:00:21
13	0:01:10	0:00:19
14	0:00:02	0:00:23
15	0:00:17	0:00:22
16	0:01:31	0:00:15
17	0:00:00	0:00:45
18	0:01:17	0:00:16
19	0:01:50	0:00:04
20	0:00:02	0:00:19
21	0:02:16	0:00:19
22	0:00:51	0:00:28
23	0:01:03	0:00:46
24	0:00:17	0:00:19
25	0:02:11	0:00:35
26	0:00:01	0:00:23
27	0:00:01	0:00:29
28	0:01:38	0:00:36
29	0:00:02	0:00:45
30	0:01:01	0:00:24
31	0:01:11	0:00:18
32	0:00:41	0:01:17
33	0:00:01	0:00:28
34	0:00:09	0:00:22
35	0:02:05	0:00:18
36	0:00:43	0:00:27
37	0:00:37	0:00:36
38	0:00:31	0:00:35
39	0:02:11	0:00:30
40	0:02:03	0:00:23

NO	t	m
41	0:00:25	0:00:31
42	0:00:40	0:00:26
43	0:01:45	0:00:26
44	0:00:50	0:00:27
45	0:00:32	0:00:24
46	0:01:13	0:00:20
47	0:00:10	0:00:10
48	0:01:30	0:00:19
49	0:00:04	0:00:25
50	0:00:01	0:00:18
51	0:00:00	0:00:17
52	0:00:02	0:00:24
53	0:00:53	0:00:31
54	0:01:00	0:00:35
55	0:01:51	0:00:32
56	0:01:21	0:00:25
57	0:00:06	0:00:17
58	0:00:27	0:00:39
59	0:00:50	0:00:59
60	0:01:39	0:00:22
61	0:00:03	0:00:30
62	0:00:30	0:00:25
63	0:00:18	0:00:10
64	0:00:15	0:00:35
65	0:00:07	0:00:25
66	0:03:58	0:00:49
67	0:00:35	0:00:36
68	0:02:00	0:00:30
69	0:00:05	0:00:17
70	0:01:15	0:00:35
71	0:00:01	0:00:29
72	0:00:21	0:00:12
73	0:00:43	0:00:37
74	0:00:11	0:00:23
75	0:03:27	0:00:41

Keterangan :

t = waktu antar kedatangan

m = waktu pelayanan

**LAMPIRAN 3**  
**HASIL OUTPUT SPSS**

waktu antarkedatangan

	Observed N	Expected N	Residual
,00	5	1.8	3.2
1,00	6	1.8	4.2
2,00	6	1.8	4.2
3,00	2	1.8	.2
4,00	1	1.8	-.8
5,00	3	1.8	1.2
6,00	2	1.8	.2
7,00	3	1.8	1.2
8,00	1	1.8	-.8
9,00	1	1.8	-.8
10,00	4	1.8	2.2
11,00	1	1.8	-.8
13,00	1	1.8	-.8
15,00	6	1.8	4.2
16,00	1	1.8	-.8
17,00	3	1.8	1.2
18,00	1	1.8	-.8
19,00	2	1.8	.2
20,00	4	1.8	2.2
21,00	2	1.8	.2
23,00	4	1.8	2.2
25,00	2	1.8	.2
26,00	1	1.8	-.8
27,00	1	1.8	-.8
29,00	1	1.8	-.8
30,00	2	1.8	.2
31,00	2	1.8	.2

32,00	1	1.8	-8
34,00	1	1.8	-8
35,00	2	1.8	.2
36,00	1	1.8	-8
37,00	1	1.8	-8
40,00	2	1.8	.2
41,00	3	1.8	1.2
43,00	3	1.8	1.2
44,00	1	1.8	-8
45,00	1	1.8	-8
47,00	1	1.8	-8
50,00	4	1.8	2.2
51,00	2	1.8	.2
53,00	1	1.8	-8
57,00	2	1.8	.2
60,00	2	1.8	.2
61,00	4	1.8	2.2
63,00	2	1.8	.2
65,00	1	1.8	-8
67,00	1	1.8	-8
68,00	2	1.8	.2
69,00	1	1.8	-8
70,00	1	1.8	-8
71,00	1	1.8	-8
73,00	2	1.8	.2
75,00	1	1.8	-8
77,00	1	1.8	-8
81,00	1	1.8	-8
83,00	1	1.8	-8
84,00	1	1.8	-8
90,00	1	1.8	-8
91,00	1	1.8	-8
95,00	2	1.8	.2
98,00	1	1.8	-8
99,00	2	1.8	.2

100,00	1	1.8	-.8
105,00	1	1.8	-.8
110,00	1	1.8	-.8
111,00	1	1.8	-.8
113,00	1	1.8	-.8
120,00	1	1.8	-.8
123,00	1	1.8	-.8
125,00	2	1.8	.2
130,00	1	1.8	-.8
131,00	3	1.8	1.2
133,00	1	1.8	-.8
136,00	1	1.8	-.8
137,00	1	1.8	-.8
139,00	1	1.8	-.8
141,00	1	1.8	-.8
146,00	1	1.8	-.8
154,00	1	1.8	-.8
190,00	1	1.8	-.8
207,00	1	1.8	-.8
238,00	1	1.8	-.8
Total	146		

#### Test Statistics

	waktu antarkedatangan
Chi-Square	71.918 <sup>a</sup>
df	81
Asymp. Sig.	.755

a. 82 cells (100,0%) have expected frequencies less than 5. The minimum expected cell frequency is 1,8



**- Unit Pelayanan 1**

**Waktu Pelayanan**

	Observed N	Expected N	Residual
13,00	2	2,5	-,5
14,00	2	2,5	-,5
15,00	4	2,5	1,5
16,00	5	2,5	2,5
17,00	7	2,5	4,5
18,00	5	2,5	2,5
19,00	3	2,5	,5
20,00	5	2,5	2,5
21,00	2	2,5	-,5
22,00	2	2,5	-,5
23,00	4	2,5	1,5
24,00	2	2,5	-,5
25,00	1	2,5	-1,5
26,00	4	2,5	1,5
27,00	2	2,5	-,5
28,00	1	2,5	-1,5
30,00	4	2,5	1,5
33,00	2	2,5	-,5
35,00	2	2,5	-,5
38,00	1	2,5	-1,5
39,00	2	2,5	-,5
43,00	2	2,5	-,5
45,00	1	2,5	-1,5
48,00	2	2,5	-,5
50,00	1	2,5	-1,5
51,00	1	2,5	-1,5
52,00	1	2,5	-1,5
65,00	1	2,5	-1,5
Total	71		

**Test Statistics**

	Waktu Pelayanan
Chi-Square <sup>a</sup>	27,197
df	27
Asymp. Sig.	,453

a. 28 cells (100,0%) have expected frequencies less than 5. The minimum expected cell frequency is 2,5.

**- Unit Pelayanan 2**

**WAKTU PELAYANAN**

	Observed N	Expected N	Residual
4,00	1	2.3	-1.3
10,00	2	2.3	-.3
12,00	1	2.3	-1.3
14,00	1	2.3	-1.3
15,00	2	2.3	-.3
16,00	2	2.3	-.3
17,00	3	2.3	.7
18,00	3	2.3	.7
19,00	5	2.3	2.7
20,00	2	2.3	-.3
21,00	1	2.3	-1.3
22,00	3	2.3	.7
23,00	7	2.3	4.7
24,00	3	2.3	.7
25,00	4	2.3	1.7
26,00	2	2.3	-.3
27,00	3	2.3	.7
28,00	3	2.3	.7
29,00	2	2.3	-.3
30,00	3	2.3	.7
31,00	2	2.3	-.3
32,00	2	2.3	-.3
35,00	5	2.3	2.7
36,00	3	2.3	.7
37,00	1	2.3	-1.3
39,00	1	2.3	-1.3
41,00	1	2.3	-1.3
45,00	2	2.3	-.3
46,00	1	2.3	-1.3
49,00	1	2.3	-1.3
55,00	1	2.3	-1.3

59,00	1	2.3	-1.3
77,00	1	2.3	-1.3
Total	75		

**Test Statistics**

	WAKTU PELAYANAN
Chi-Square	28.400 <sup>a</sup>
df	32
Asymp. Sig.	.649

a. 33 cells (100,0%) have expected frequencies less than 5. The minimum expected cell frequency is 2,3.

## LAMPIRAN 4

## TABEL CHI-SQUARE

Nilai Persentil Untuk Distribusi  $\chi^2$

$\nu$	$\chi^2_{0,995}$	$\chi^2_{0,99}$	$\chi^2_{0,975}$	$\chi^2_{0,95}$	$\chi^2_{0,90}$	$\chi^2_{0,75}$	$\chi^2_{0,50}$	$\chi^2_{0,25}$	$\chi^2_{0,10}$	$\chi^2_{0,05}$	$\chi^2_{0,025}$	$\chi^2_{0,01}$
1	7,88	6,63	5,02	3,84	2,71	1,32	0,455	0,102	0,016	0,004	0,001	0,0002
2	10,6	9,21	7,38	5,99	4,61	2,77	1,39	0,575	0,211	0,103	0,051	0,0201
3	12,8	11,3	9,35	7,81	6,25	4,11	2,37	1,21	0,584	0,352	0,216	0,115
4	14,9	13,3	11,1	9,49	7,78	5,39	3,36	1,92	1,06	0,711	0,484	0,297
5	16,7	15,1	12,8	11,1	9,24	6,63	4,35	2,67	1,61	1,15	0,831	0,554
6	18,5	16,8	14,4	12,6	10,6	7,84	5,35	3,45	2,20	1,64	1,24	0,872
7	20,3	18,5	16,0	14,1	12,0	9,04	6,35	4,25	2,83	2,17	1,69	1,24
8	22,0	20,1	17,5	15,5	13,4	10,2	7,34	5,07	3,49	2,73	2,18	1,65
9	23,6	21,7	19,0	16,9	14,7	11,4	8,34	5,90	4,17	3,33	2,71	2,09
10	25,2	23,2	20,5	18,3	16,0	12,5	9,34	6,74	4,87	3,94	3,25	2,56
11	26,8	24,7	21,9	19,7	17,3	13,7	10,3	7,58	5,58	4,57	3,82	3,05
12	28,3	26,2	23,3	21,0	18,5	14,8	11,3	8,44	6,30	5,23	4,40	3,57
13	29,8	27,7	24,7	22,4	19,8	16,0	12,3	9,30	7,04	5,89	5,01	4,11
14	31,3	29,1	26,1	23,7	21,1	17,1	13,3	10,2	7,79	6,57	5,63	4,66
15	32,8	30,6	27,5	25,0	22,3	18,2	14,3	11,0	8,55	7,26	6,26	5,23
16	31,3	32,0	28,8	26,3	23,5	19,4	15,3	11,9	9,31	7,96	6,91	5,81
17	35,7	33,1	30,2	27,6	24,8	20,5	16,3	12,8	10,1	8,67	7,56	6,41
18	37,2	34,8	31,5	28,9	26,0	21,6	17,3	13,7	10,9	9,39	8,23	7,01
19	38,6	36,2	32,9	30,1	27,2	22,7	18,3	14,6	11,7	10,1	8,91	7,63
20	40,0	37,6	34,2	31,4	28,4	23,8	19,3	15,5	12,4	10,9	9,59	8,26
21	41,4	38,9	35,5	32,7	29,6	24,9	20,3	16,3	13,2	11,6	10,3	8,90
22	42,8	40,3	36,8	33,9	30,8	26,0	21,3	17,2	14,0	12,3	11,0	9,54
23	44,2	41,6	38,1	35,2	32,0	27,1	22,3	18,1	14,8	13,1	11,7	10,2
24	45,6	43,0	39,4	36,4	33,2	28,2	23,3	19,0	15,7	13,8	12,4	10,9
25	46,9	44,3	40,6	37,7	34,4	29,3	24,3	19,9	16,5	14,6	13,1	11,5
26	48,3	45,6	41,9	38,9	35,6	30,1	25,3	20,8	17,3	15,4	13,8	12,2
27	49,6	47,0	43,2	40,1	36,7	31,5	26,3	21,7	18,1	16,2	14,6	12,9
28	51,0	48,3	44,3	41,3	37,9	32,6	27,3	22,7	18,9	16,9	15,3	13,6
29	52,3	49,6	45,7	42,6	39,1	33,7	28,3	23,6	19,8	17,7	16,0	14,3
30	53,7	50,9	47,0	43,8	40,3	34,8	29,3	24,5	20,6	18,3	16,8	15,0
40	66,8	63,7	59,3	55,8	51,8	45,6	39,3	33,7	29,1	26,5	24,4	22,2
50	79,5	76,2	71,4	67,5	63,2	56,3	49,3	42,9	37,7	34,8	32,4	29,7
60	92,0	88,4	83,3	79,1	74,4	67,0	59,3	52,3	46,5	43,2	40,5	37,5
70	104,2	100,4	95,0	90,5	85,5	77,6	69,3	61,7	55,3	51,7	48,8	45,4
80	116,3	112,3	106,6	101,9	96,6	88,1	79,3	71,1	64,3	60,4	57,2	53,5
90	128,3	124,1	118,1	113,1	107,6	98,6	89,3	80,6	73,3	69,1	65,6	61,8
100	140,2	135,8	129,6	124,3	118,3	109,1	99,3	90,1	82,4	77,9	71,2	70,1

Sumber: *Table of Percentage Points of the  $\chi^2$  Distribution*, Thompson, C.M., *Biometrika*, Vol 32 (1944)



## RIWAYAT HIDUP



Penulis bernama lengkap Irma Ratnasari. Dilahirkan di Bandung, 27 Mei 1985. Beralamat di Jl. Sukamulya No. 97 Rt 05 Rw 10 Bandung 40233. Anak kedua dari dua bersaudara pasangan Ano Suparno (alm.) dan Hj. Ety Lusirowati ini, menikah di Kota Bandung tepatnya tanggal 20 September 2003 dengan seorang pria bernama Syswanto.

Penulis menyelesaikan pendidikan dasar di SDN Gentra Masekdas II tahun 1997, SLTPN 3 Bandung tahun 2000, SMUN 8 Bandung tahun 2003, dan mulai kuliah di Jurusan Pendidikan Matematika Universitas Pendidikan Indonesia sejak tahun 2003.

Sejak sekolah di SMU, penulis pernah mengikuti beberapa kegiatan, diantaranya adalah Rohis SMU, Santri Siap Guna Daarut Tauhiid, dan Karisma Salman ITB. Selain itu, penulis juga pernah bekerja sebagai *freelance* fasilitator di ELTAPS, *freelance guide* Wisata Rohani di Daarut Tauhiid, dan saat ini aktif sebagai fasilitator pelatihan di LP2ES *Learning Centre* (Lembaga Pendidikan dan Pelatihan Ekonomi Syari'ah) Daarut Tauhiid.