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LAMPIRAN

Lampiran 1. Data pengujian

Data pengujian sarat 100 %

Panjang tali 1L

Kapal Kosong	waktu barge	69	=	0,165217	m/s
	waktu tugboat	67	=	0,170149	m/s
	euler compass	0.12-2.01		ok	
	panjang tali	1 l	=	180	cm
	panjang V tali	1l	=	28	cm

Panjang tali 1,5L

kapal kosong	waktu barge	71	=	0,160563	m/s
	waktu tugboat	66	=	0,172727	m/s
	euler compass	0.15-2.05	=	ok	
	panjang tali	1.5 l	=	270	cm
	panjang V tali	1.5 l	=	35	cm

Panjang tali 2L

kapal kosong	waktu barge	71	=	0,160563	m/s
	waktu tugboat	67	=	0,170149	m/s
	euler compass	0.14-2.04	=	ok	
	panjang tali	2l	=	360	cm
	panjang V tali	2l	=	40	cm

Data pengujian sarat 75 %

Panjang tali 1L

Kapal Kosong	waktu barge	69	=	0,165217	m/s
	waktu tugboat	67	=	0,170149	m/s
	euler compass	0.30-2.17		ok	
	panjang tali	1 l	=	180	cm
	panjang V tali	1l	=	28	cm

Panjang tali 1,5L

kapal kosong	waktu barge	70	=	0,162857	m/s
	waktu tugboat	65	=	0,175385	m/s
	euler compass	0.7-2.07	=	ok	
	panjang tali	1.5 l	=	270	cm
	panjang V tali	1.5 l	=	35	cm

Panjang tali 2L

kapal kosong	waktu barge	71	=	0,160563	m/s
	waktu tugboat	67	=	0,170149	m/s
	euler compass	0.16-2.06	=	ok	
	panjang tali	1.5 l	=	360	cm
	panjang V tali	1.5 l	=	40	cm

Lampiran 2. Analisis data Yaw sarat 100 %

Panjang tali 1L

Kapal Kosong	Waktu (s)	Yaw (degree)
	1	-2
	2	-1
	3	-1
	4	-1
	5	-1
	6	-1
	7	0
	8	0
	9	0
	10	0
	11	1
	12	1
	13	1
	14	1
	15	1
	16	1
	17	1
	18	1
	19	1
	20	1
	21	1
	22	0
	23	-1
	24	-2
	25	-2
	26	-2
	27	-2
	28	-2
	29	-2
	30	-2
	31	-2
	32	-2
	33	-1
	34	-1
	35	-1
	36	-1
	37	0
	38	0
	39	0
	40	1
	41	1
	42	2
	43	2
	44	2
	45	3
	46	3
	47	3
	48	4
	49	4
	50	4
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	53	4
	54	4
	55	4
	56	4
	57	4
	58	4
	59	3
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	62	3
	63	3
	64	3
	65	3
	66	3
	67	3
	68	2
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	70	2
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	80	2
	81	2
	82	2
	83	2
	84	2
	85	1
	86	1
	87	1
	88	2
	89	2
	90	2
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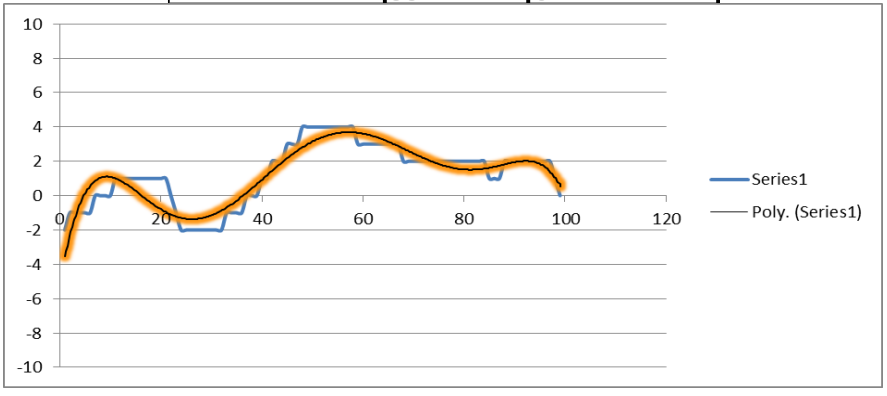
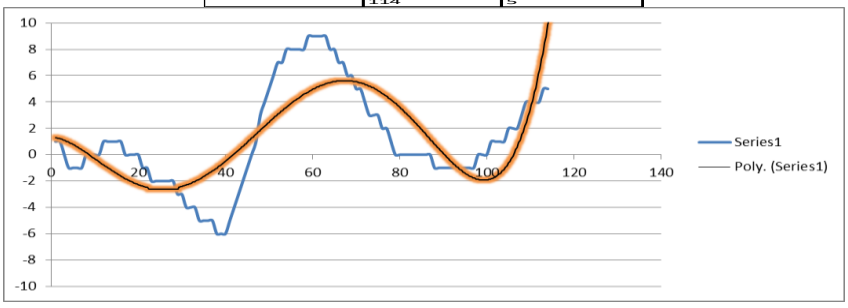
	92	2
	93	2
	94	2
	95	2
	96	2
	97	2
	98	1
	99	0



Panjang tali 1,5L

Kapal Kosong	Waktu (s)	Yaw (degree)
	1	1
	2	1
	3	0
	4	-1
	5	-1
	6	-1
	7	-1
	8	0
	9	0
	10	0
	11	0
	12	1
	13	1
	14	1
	15	1
	16	1
	17	0
	18	0
	19	0
	20	0
	21	-1
	22	-1
	23	-2
	24	-2
	25	-2
	26	-2
	27	-2
	28	-2
	29	-3
	30	-3
	31	-4
	32	-4
	33	-4
	34	-5
	35	-5
	36	-5
	37	-5
	38	-6
	39	-6
	40	-6
	41	-5
	42	-4
	43	-3
	44	-2
	45	-1
	46	0
	47	1
	48	3
	49	4
	50	5
	51	6
	52	7
	53	7
	54	8
	55	8
	56	8
	57	8
	58	8
	59	9
	60	9
	61	9
	62	9
	63	9
	64	8
	65	8
	66	7
	67	7
	68	6
	69	6
	70	5
	71	5
	72	4
	73	3
	74	3
	75	3
	76	2
	77	2
	78	1
	79	0
	80	0
	81	0
	82	0
	83	0
	84	0
	85	0
	86	0
	87	0
	88	-1
	89	-1
	90	-1
	91	-1
	92	-1
	93	-1
	94	-1
	95	-1
	96	-1
	97	-1
	98	0
	99	0
	100	0
	101	1
	102	1
	103	1
	104	1
	105	2
	106	2
	107	2
	108	3
	109	4
	110	4
	111	4
	112	4
	113	5
	114	5



Panjang tali 2L

Kapal Kosong	Waktu (s)	Yaw (degree)
	1	0
	2	0
	3	0
	4	0
	5	0
	6	0
	7	-1
	8	-1
	9	-1
	10	-1
	11	-1
	12	-2
	13	-2
	14	-2
	15	-2
	16	-2
	17	-3
	18	-3
	19	-3
	20	-3
	21	-3
	22	-4
	23	-4
	24	-4
	25	-4
	26	-4
	27	-4
	28	-4
	29	-4
	30	-4
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	32	-5
	33	-5
	34	-6
	35	-4
	36	-3
	37	-3
	38	-2
	39	-1
	40	0
	41	1
	42	2
	43	3
	44	4
	45	4
	46	4
	47	3
	48	3
	49	4
	50	4
	51	4
	52	4
	53	4
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	63	3
	64	2
	65	1
	66	1
	67	1
	68	1
	69	1
	70	1
	71	1
	72	0
	73	0
	74	0
	75	0
	76	-1
	77	-1
	78	-1
	79	-1
	80	-1
	81	-1
	82	-2
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	110	1
	111	1
	112	1
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	114	2
	115	2
	116	1
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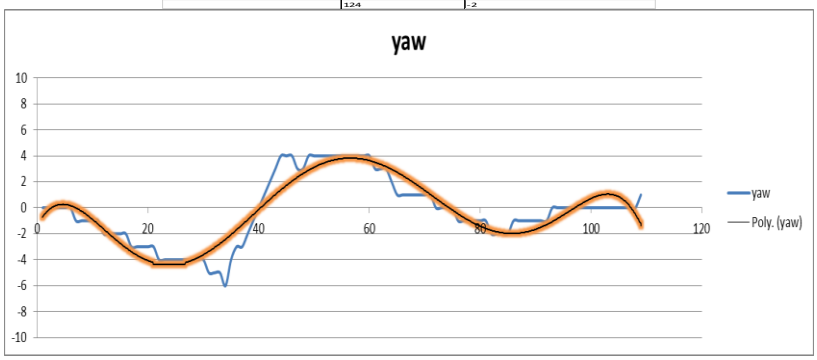
	118	1
	119	0
	120	0
	121	-1
	122	-1
	123	-2
	124	-2



Lampiran 3. Analisis data Yaw sarat 75%

Panjang tali 1L

Kapal Kosong	Waktu (s)	Sway (meter)
	1	0
	2	0
	3	0
	4	0
	5	-1
	6	-1
	7	-1
	8	-1
	9	-1
	10	-1
	11	-2
	12	-2
	13	-2
	14	-2
	15	-2
	16	-2
	17	-2
	18	-2
	19	-2
	20	-3
	21	-3
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	32	-5
	33	-5
	34	-5
	35	-5
	36	-4
	37	-3
	38	-2
	39	-1
	40	0
	41	1
	42	2
	43	3
	44	4
	45	5
	46	5
	47	5
	48	5
	49	5
	50	5
	51	5
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	73	3
	74	2
	75	2
	76	2
	77	2
	78	2
	79	1
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	91	-1
	92	-1
	93	-1
	94	-1
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	99	1
	100	1
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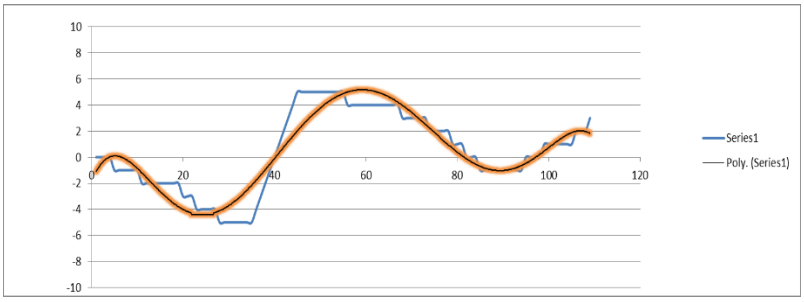
	102	1
	103	1
	104	1
	105	1
	106	2
	107	2
	108	2
	109	3



Panjang tali 1,5L

Kapal Kosong	Waktu (s)	yaw (meter)
	1	1
	2	0
	3	0
	4	-1
	5	-1
	6	-1
	7	-1
	8	-1
	9	-1
	10	-2
	11	-2
	12	-2
	13	-2
	14	-2
	15	-2
	16	-2
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	25	-5
	26	-5
	27	-4
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	31	-2
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	33	0
	34	1
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	50	4
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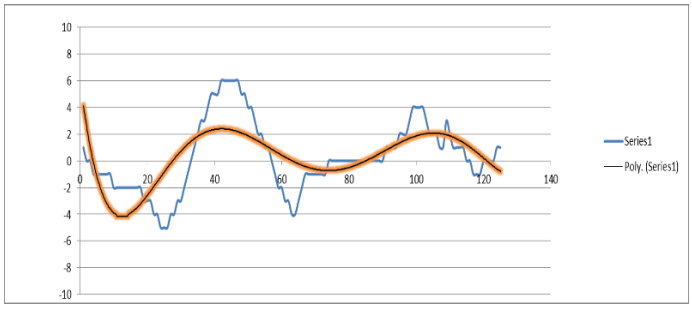

Panjang tali 2L

Kapal Kosong	Waktu (s)	yaw (meter)
	1	-1
	2	-1
	3	0
	4	0
	5	0
	6	0
	7	-1
	8	-1
	9	-1
	10	-1
	11	-1
	12	-2
	13	-2
	14	-2
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	44	-1
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	47	0
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	49	0
	50	0
	51	1
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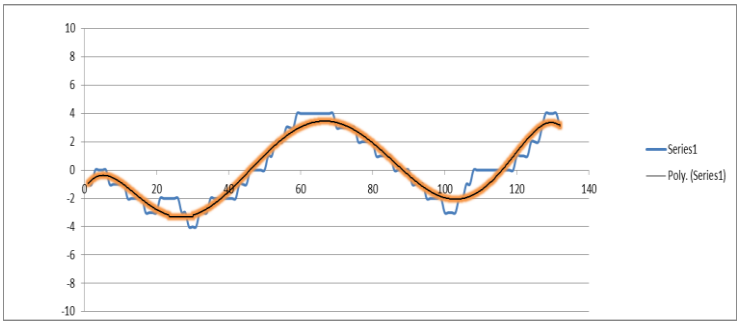
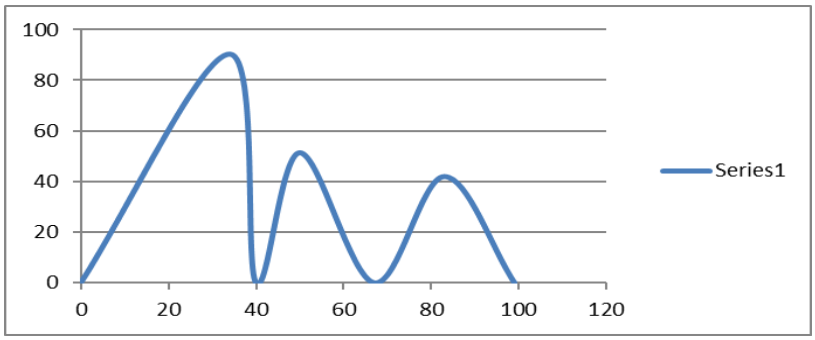
	131	4
	132	3



Lampiran 4. Analisis data Sway sarat 100%

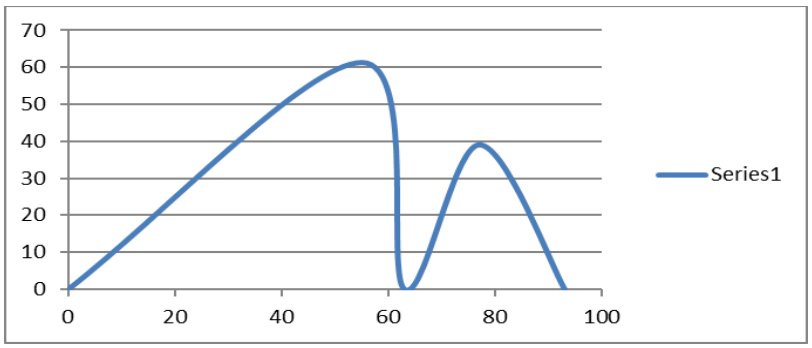
Panjang tali 1L

Kapal Kosong	Waktu (s)	sway (degree)
	0	0
	34	90,25
	40	0
	50	51,34
	67	0
	83	41,95
	99	0



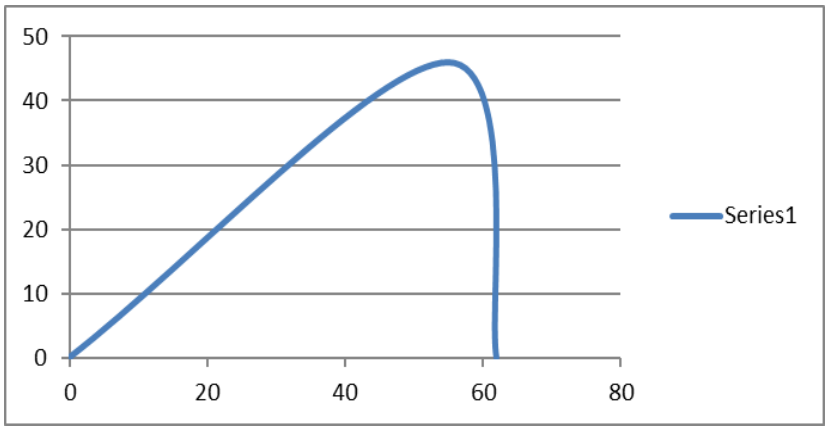
Panjang tali 1,5L

Kapal Kosong	Waktu (s)	Sway (meter)
	0	0
	55	61,43
	63	0
	77	39,17
	93	0



Panjang tali 2L

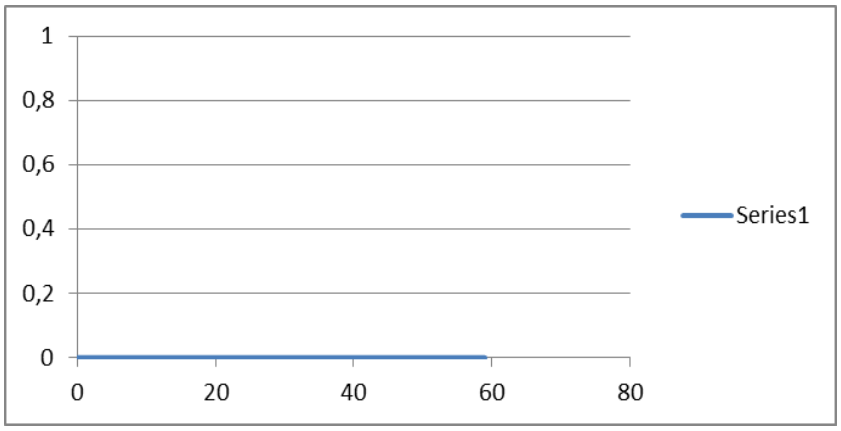
Kapal Kosong	Waktu (s)	Sway (meter)
	0	0
	55	46,05
	62	0



Lampiran 5. Analisis data Sway sarat 75%

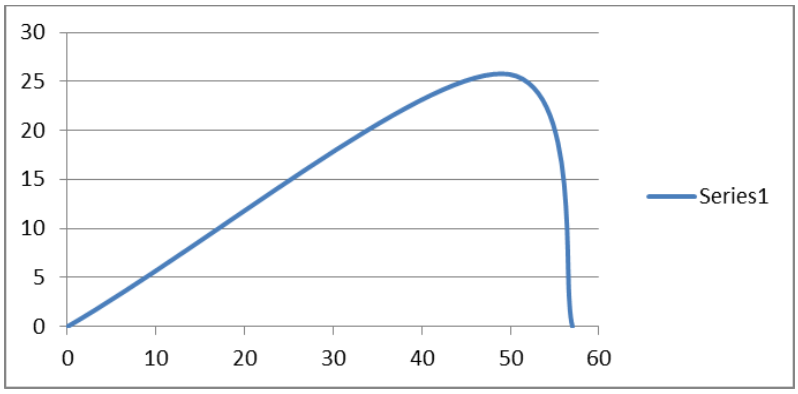
Panjang tali 1L

Kapal Kosong	Waktu (s)	Yaw (degree)
	0	0
	34	0
	59	0



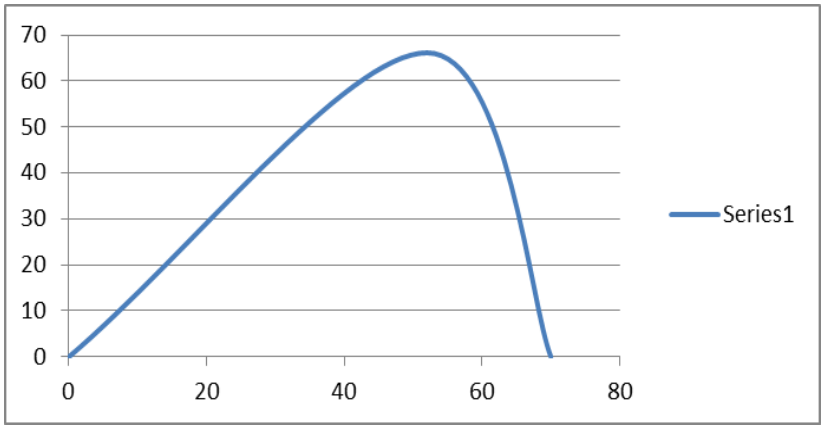
Panjang tali 1,5L

Kapal Kosong	Waktu (s)	Yaw (degree)
	0	0
	49	25,8
	57	0



Panjang tali 2L

Kapal Kosong	Waktu (s)	Sway (meter)
	0	0
	52	66,17
	70	0



REVISI SEMINAR HASIL ANDI IZARMAN SUTARYA

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Diperiksa Oleh Pembimbing I dan Pembimbing II

Gowa, 13 Juni 2022