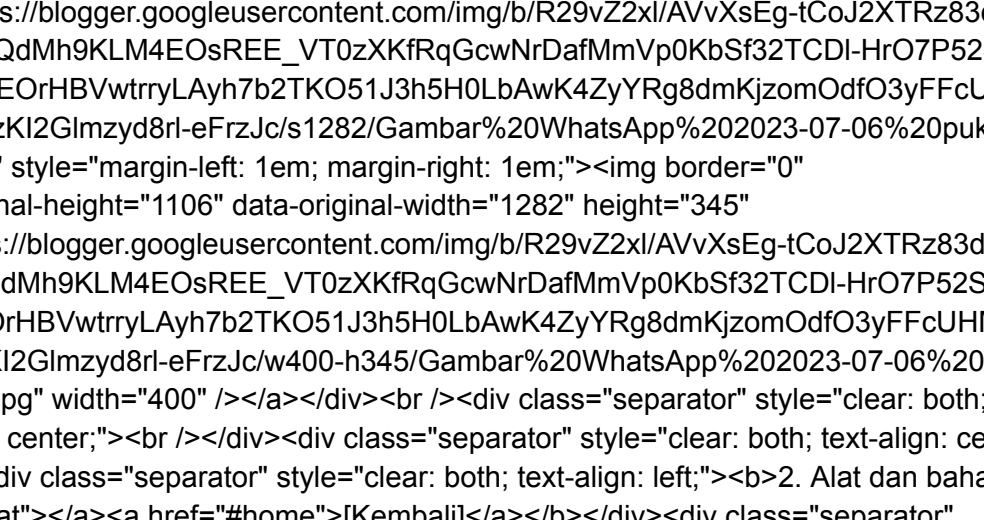


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font-size: large; font-weight: 700;">Laporan Akhir 1</span></div><div style="text-align:
center;"><span style="font-family: arial;"><b>(Serial In/Serial Out, Paralel In/Serial Out,
dan&nbsp;</b></span></div><div style="text-align: center;"><span style="font-family:
arial;"><b>Paralel In/Paralel Out Shift Register dengan Kapasitas 4 bit)</b></span></div><div
style="text-align: center;"><span style="font-family: arial;"><b><br /></b></span></div><div
style="text-align: center;"><span style="font-family: arial;"><b><br /></b></span></div>
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<a href="https://rahmada212014.blogspot.com/p/modul-iv-shift-register-dan-seven.html"><span
style="color: #2b00fe; font-family: times;">[KEMBALI KE MENU
SEBELUMNYA]</span></a></div>
<span style="color: #2b00fe; font-family: times;"><br />
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overflow: auto; padding: 10px; text-align: center; width: 330px;">
<span style="color: #2b00fe; font-family: times;"><b>DAFTAR ISI</b>
<br />
</span><div style="text-align: left;">
<a href="#jurnal"><span style="color: #2b00fe; font-family: times;">1. Jurnal</span></a></div>
<div style="text-align: left;">
<a href="#alat"><span style="color: #2b00fe; font-family: times;">2. Alat dan
Bahan</span></a></div>
<div style="text-align: left;">
<a href="#rangkaian"><span style="color: #2b00fe; font-family: times;">3.
Rangkaian</span></a></div>
<div style="text-align: left;">
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style="color: #2b00fe; font-family: times;">4. Prinsip Kerja</span></a><br />
</span><div style="text-align: left;">
<a href="#video"><span style="color: #2b00fe; font-family: times;">5. Video
Percobaan</span></a></div>
<div style="text-align: left;">
<a href="#analisis"><span style="color: #2b00fe; font-family: times;">6.
Analisis</span></a></div>
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<div style="text-align: left;">
<a href="#download"><span style="color: #2b00fe; font-family: times;">7.
Download</span></a></div>
</div>
</center>
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1. Jurnal

[\[Kembali\]](#)



2. Alat dan bahan

[\[Kembali\]](#)

A. Alat dan Bahan (Modul De Lorenzo)

umber

[illegible]

[illegible]

goEc9P5skRypaRlZqAfQ0iWBk0HxbMMZs12CvpPwOZH81uPL68A0JemgOKgql8NM93sgBFQBgTs1fq-fjO8\_WSE7f6g8ghgS61TKmFe6edfomBYjPLwaB\_N9aeV9J2mnFrHWLk909CJhgLLGZ3uD2vt5xoDiMVORGCvNK1w/s979/Tabel%20Kebenaran%20JK%20Flip%20Flop.png" style="margin-left: auto; margin-right: auto; text-decoration-line: none;"></a></td></tr><tr><td class="tr-caption" style="text-align: center;">Tabel Kebanaran JK Flip Flop</td></tr></tbody></table><br /><span><br /></span></span></div><br /></div><span face="Arial, Tahoma, Helvetica, FreeSans, sans-serif"><div style="font-weight: bold;"><div style="font-family: trebuchet; font-weight: 400;">&nbsp; 2.<span face="Arial, Tahoma, Helvetica, FreeSans, sans-serif">&nbsp;</span><span style="font-family: times;">Power DC</span></div></div></span></div><div class="separator" style="clear: both;"><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; margin: 0px; padding: 0px;"><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; margin: 0px; padding: 0px; text-align: center;"><a href="https://blogger.googleusercontent.com/img/b/R29vZ2xl/AVvXsEiifCpql-hK4HMFsTtWx-k63-IZKbRxgl5nzCc7JeiAaIMiPGMBKUN\_FYR-WP1ziACvUliQsf8WaWfO0ZPi5mtkodnnow-Dg8joTApnKVGjYpwl3OR5FT1pmPMf3rBeiZxVy1qVEbmQGGg\_1R3Jfc2FHjrwFwjN7I\_UmWBGifWrwIKEJHtUu5wHwSn/s192/image\_2022-03-23\_125741.png" style="border: 0px; box-sizing: border-box; margin: 0px 1em; padding: 0px; text-decoration-line: none; transition: all 0.3s ease 0s;"><span style="color: black; font-family: times; font-size: small;"></span></a></div><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; margin: 0px; padding: 0px; text-align: center;"><span style="font-family: times;"><br /></span></div><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; margin: 0px; padding: 0px; text-align: center;"><span style="font-family: times;"><br style="box-sizing: border-box;" /></span></div><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; margin: 0px; padding: 0px;"><span style="font-family: times;">&nbsp; &nbsp; 3.&nbsp;&nbsp;Switch (SW-SPDT)</span></div><div

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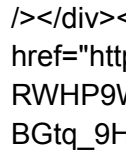
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box-sizing: border-box; clear: both; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif;
margin: 0px; padding: 0px;"><span style="font-family: times;">&nbsp; &nbsp; 4.&nbsp;&nbsp; Gerbang
AND</span></div></div></div></div></div><div style="background-color: white; font-family:
'"Trebuchet MS", Trebuchet, Verdana, sans-serif;"><div class="separator"
style="clear: both;"><div class="separator" style="clear: both;"><div class="separator"
style="border: 0px; box-sizing: border-box; clear: both; margin: 0px; padding: 0px;"><div
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0px;"><span style="font-family: times; text-align: justify;">&nbsp; &nbsp;</span></div><div
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0px;"><span style="font-family: times; text-align: justify;">Gerbang logika AND
adalah</span><span style="font-family: times; font-weight: 700; text-align:
justify;">&nbsp;</span><span style="font-family: times; text-align: justify;">gerbang logika yang
membutuhkan dua atau lebih masukan (input) untuk menghasilkan satu output</span><span
style="font-family: times; text-align: justify;">. Ketika salah satu atau seluruh bilangan biner pada
inputnya adalah 0 maka output yang akan dihasilkan juga 0. Sedangkan jika inputnya adalah 1
seluruhnya, maka outputnya adalah 1</span><span style="font-family: times; text-align:
justify;">.</span><span style="font-family: times; text-align: justify;">&nbsp;dilihat bahwa pada
gerbang AND, keluarannya akan bernilai 1 jika semua input adalah 1.&nbsp;</span><span
style="font-family: times; text-align: justify;">Dan jika salah satu atau lebih input ada yang
bernilai nol maka ouput akan bernilai nol. Untuk&nbsp;</span><span style="font-family: times;
text-align: justify;">gerbang AND memakai prinsip&nbsp;</span><span style="font-family:
times; text-align: justify;">perkalian</span><span style="font-family: times; text-align:

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justify;";>.</span></div><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; margin: 0px; padding: 0px;"><br /></div><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; margin: 0px; padding: 0px;"><table align="center" cellpadding="0" cellspacing="0" class="tr-caption-container" style="background-attachment: initial; background-clip: initial; background-image: initial; background-origin: initial; background-position: initial; background-repeat: initial; background-size: initial; border: 1px solid rgb(238, 238, 238); box-shadow: rgba(0, 0, 0, 0.1) 1px 1px 5px; margin-bottom: 0.5em; margin-left: auto; margin-right: auto; padding: 5px; position: relative; text-align: center;"><tbody><tr><td><a href="https://blogger.googleusercontent.com/img/b/R29vZ2xl/AVvXsEipvZASO-wkFpPn5yhMXZnp-43VGSA65NxNF2cq8OLFS-1pFkHRAuulVGNOuRme6JvJILW1mLtSHuWpKd1vCJvzTaP0FcWctXYPFRHy0bRaXb50eUY9Zs7sTWdyWCAnHoS6tHbPjoEvjvSFJoeKVrdvfrS1jZCRYEJueftTYtfuVZAFXp3mXaXjZ4-P/s228/tabel%20kebenaran.PNG" style="margin-left: auto; margin-right: auto; text-decoration-line: none;"><span style="color: black; font-family: times;"></span></a></td></tr><tr><td class="tr-caption"><span style="font-family: times;">Tabel 1.1 Tabel Kebenaran AND<br /><br /></span><div style="text-align: justify;"><span style="font-family: times;"><br /></span></div></td></tr></tbody></table></div><div style="font-family: &quot;Times New Roman&quot;;"><br /></div><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; margin: 0px; padding: 0px;"><span style="font-family: times;">&nbsp; &nbsp; &nbsp; 5.&nbsp;&nbsp;&nbsp; Gerbang Not</span></div><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; margin: 0px; padding: 0px;"><span style="font-family: times;"><br /></span></div><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; margin: 0px; padding: 0px;"><span style="font-family: times;"><div class="separator" style="clear: both; font-family: &quot;Times New Roman&quot;; text-align: center;"><span style="clear: left; color: black; float: left; font-family: times; margin-bottom: 1em; margin-right: 1em; text-align: justify;"><span style="text-align: left;">Gerbang NOT merupakan gerbang di maan keluarannya akan selalu berlawanan dengan masukannya. Bila pada masukan diberikan tegangan, maka transistor akan jenuh dan keluaran bertegangan nol. Sedangkan bila pada masukannya diberi tegangan tertentu, maka transistor akan cut off, sehingga keluaran akan bertegangan tidak nol.</span></span></div><table align="center" cellpadding="0" cellspacing="0" class="tr-caption-container" style="background-attachment: initial; background-clip: initial; background-image: initial; background-origin: initial; background-position: initial; background-repeat: initial; background-size: initial; border: 1px solid rgb(238, 238, 238); box-shadow: rgba(0, 0, 0, 0.1) 1px 1px 5px; font-family: &quot;Times New Roman&quot;; margin-bottom: 0.5em; margin-left: auto; margin-right: auto; padding: 5px; position:

relative;"><tbody><tr><td style="text-align: center;"><a href="https://blogger.googleusercontent.com/img/b/R29vZ2xl/AVvXsEgPyEJ4biuskRmzVLGCIFnLrHbZ-VbRpQI95EpQnSsqBtjodLkNiwfYWhZFli4Ma7YsP9\_tDE5\_iXJG2QSdTG19h1bie-kkgNVyS29khFziRdjOlqKPGf85jQ8L9hydT7Gr-VIS80LmJdl3XpEXyWMua1MICV6\_cB4sdYMqPPzOKFFdxUCCSXzusGC/s180/tabel%20not.PNG" style="margin-left: auto; margin-right: auto; text-decoration-line: none;"><span style="color: black; font-family: times;"></span></a></td></tr><tr><td class="tr-caption" style="text-align: center;"><span style="font-family: times;">Tabel 1.3 Tabel Kebenaran Logika NOT<br /><br /></span><div style="text-align: justify;"><span style="font-family: times;"><br /></span></div></td></tr></tbody></table><br /></span></div><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; margin: 0px; padding: 0px;"><span style="font-family: times;"><br /></span></div><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; margin: 0px; padding: 0px;"><span style="font-family: times;">&nbsp; &nbsp; 6.&nbsp;  Logicprobe atau LED</span></div><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; margin: 0px; padding: 0px; text-align: center;"><a href="https://blogger.googleusercontent.com/img/b/R29vZ2xl/AVvXsEgTnTshOdc9NAb7ZW1IPxo4aAS-0uzaAiHrYMV8qlpYutsyXNLVBhDTPiU3SQ2QtavKQN5YR6AmM9neRLWuXH2UbmjUeo8fIAAI-GxpS6SGfizcbl34o5uoaHVdA9hUe\_jzzSLxjrnuN4JNzjZgBfbSsrw1FnZLk6-yLsvz5-nlVxQs7yqwqmDcPeS1/s198/image\_2022-03-23\_130029.png" style="border: 0px; box-sizing: border-box; margin: 0px 1em; padding: 0px; text-decoration-line: none; transition: all 0.3s ease 0s;"><span style="color: black; font-family: times; font-size: small;"></span></a></div><div class="separator" style="border: 0px; box-sizing: border-box; clear: both; font-family: Arial, Tahoma, Helvetica, FreeSans, sans-serif; margin: 0px; padding: 0px; text-align: center;"><span style="font-family: times;">Gambar 7. Logic Probe</span></div></div></div></div></div></div><div class="separator" style="clear: both;"><br /></div><div class="separator" style="clear: both;"><b>3. Rangkaian Simulasi<a name="rangkaian"></a><a href="#home">[Kembali]</a></b></div><div class="separator" style="clear: both;"><br /></div>





[!\[\]\(b4746ffbe3ffe6750d2dbafa2ea7d9e5\_img.jpg\)](https://blogger.googleusercontent.com/img/b/R29vZ2xl/AVvXsEilGX_eYTCUw8ged8jkG9RWHP9Wq2hA_TB-ePgtXCeFhE874NySZiMVE0nbt0DM0eZ-G7eNUu0jTWToaVqqW9n8eWQBGTq_9HZ1n8gQcaBgLcqIWLJdzGGuJhCDSeF5Ec61O-k5JeCGmyVBI7GAqLORn1YDN8gkhrHmQBSeTyFHU_n1E0EhCvRjXJ31vk/s2436/1.PNG)

**4. Prinsip Kerja**

[Kembali]

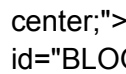
Pada percobaan 1 ini dirangkai suatu rangkaian Shift Register (register geser) keluaran output 4 bit dengan perwakilan output logicprobe. Pada rangkaian shift register keluaran 4 bit ini berarti menggunakan 4 buah IC J-K flip flop sebagai perwakilan 1 bit keluaran untuk 1 buah J-K flipflop.

Pada rangkaian ini memiliki 4 input masukan dari J-K flip flop dan 4 input keluaran dari J-K flip flop dimana akan terjadi proses operasi SISO, SIPO, PISO, dan PIPO pada rangkaian sesuai pengaturan switch dan kondisi. Maka pada prosesnya akan terjadi sistem kerja serial dan paralel yang dimana pada rangkaian akan terjadi perwakilan dari penggeseran pada sistem serial maupun serempak pada sistem paralel baik itu masukan maupun keluaran suatu biner yang dimana pergeseran maupun serempak pada sistem serial dan paralel ini akan mewakili MSB dan LSB dari 4 bit binner masukan dan keluaran. Terjadinyam proses input dan output logika pada rangkaian ini juga berarti bahwa proses terjadinya register geser ini dapat menyimpan memori sementara pada masukan menuju keluaran bit ke-4 dari dearah lingkup keluaran 4 bit.

Dari percobaan 1 yang sudah dilakukan, didapatkan hasil output pada masing-masing kondisi pada jurnal, untuk kondisi 1 bersifat SISO, karena inputan dan keluarannya mengalami pergeseran serta masuk dan keluar secara bergantian (satu per satu/serial). Untuk kondisi 2 bersifat SIPO, karena inputannya masuk secara bergantian (satu per satu/serial), sedangkan untuk keluarannya keluar secara serentak (paralel). Untuk kondisi 3 bersifat PISO, karena inputannya masuk secara serentak (paralel), sedangkan keluarannya keluar secara bergantiang (satu per satu/serial). Dan untuk kondisi 4 bersifat PIPO, karena inputan dan keluarannya masuk secara bersamaan (serentak/paralel).

**5. Video Praktikum**

[Kembali]



[illegible]

aring"><span style="color: #2b00fe;">[klik disini]</span></a></span></li><li>Download  
Rangkaian&nbsp;<a  
href="https://drive.google.com/file/d/151WLLclurEU8\_fsIoGeSHfiU9cfDBJUy/view?usp=sharing  
" style="font-family: times;"><span style="color: #2b00fe;">[klik  
disini]</span></a></li><li>Download Video&nbsp;<a  
href="https://drive.google.com/file/d/18924u9ejG0lKzqrSnfDyXXOpS-qRQvS/view?usp=sharin  
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OSv8\_P" style="font-family: times;"><span style="color: #2b00fe;">[klik  
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