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| **Sr. No.** | **Topic** | **Resources** |
|  | Associative Learning | [**Link**](https://www.google.com/search?q=associative+learning+in+artificial+neural+network&rlz=1C1VDKB_enIN991IN991&oq=Associative+Learning+&gs_lcrp=EgZjaHJvbWUqBwgDEAAYgAQyBggAEEUYOTIHCAEQABiABDIHCAIQABiABDIHCAMQABiABDIHCAQQABiABDIHCAUQABiABDIHCAYQABiABDIHCAcQABiABDIHCAgQABiABDIHCAkQABiABNIBCDQxMzJqMGo3qAIAsAIA&sourceid=chrome&ie=UTF-8) |
|  | Hopfield network | [**Link**](https://www.google.com/search?q=hopfield+network+in+artificial+neural+network&rlz=1C1VDKB_enIN991IN991&oq=hopfield+network+in+artneural+network&gs_lcrp=EgZjaHJvbWUqCAgBEAAYBxgeMgYIABBFGDkyCAgBEAAYBxgeMg0IAhAAGIYDGIAEGIoFMg0IAxAAGIYDGIAEGIoFMg0IBBAAGIYDGIAEGIoFMg0IBRAAGIYDGIAEGIoFMgoIBhAAGIAEGKIEMgoIBxAAGIAEGKIEMgcICBAAGO8F0gEIOTYxNGowajmoAgCwAgA&sourceid=chrome&ie=UTF-8) |
|  | Error Performance in Hopfield networks | [**Link**](https://www.google.com/search?q=Error+Performance+in+Hopfield+networks&rlz=1C1VDKB_enIN991IN991&oq=Error+Performance+in+Hopfield+networks&gs_lcrp=EgZjaHJvbWUyBggAEEUYOTIGCAEQIxgnMg0IAhAAGIYDGIAEGIoFMg0IAxAAGIYDGIAEGIoFMg0IBBAAGIYDGIAEGIoFMgoIBRAAGIAEGKIEMgoIBhAAGIAEGKIEMgoIBxAAGIAEGKIE0gEIMTA1NGowajmoAgCwAgA&sourceid=chrome&ie=UTF-8) |
|  | simulated annealing | [**Link**](https://www.google.com/search?q=simulated+annealing&rlz=1C1VDKB_enIN991IN991&oq=simulated+annealing+&gs_lcrp=EgZjaHJvbWUyBggAEEUYOTIGCAEQIxgnMg0IAhAAGJECGIAEGIoFMg0IAxAAGJECGIAEGIoFMgcIBBAAGIAEMgwIBRAAGBQYhwIYgAQyBwgGEAAYgAQyBwgHEAAYgAQyBwgIEAAYgAQyBwgJEAAYgATSAQgyNDk1ajBqOagCALACAA&sourceid=chrome&ie=UTF-8) |
|  | Boltzmann machine and Boltzmann learning | [**Link**](https://www.google.com/search?q=Boltzmann+machine+and+Boltzmann+learning&rlz=1C1VDKB_enIN991IN991&oq=Boltzmann+machine+and+Boltzmann+learning+&gs_lcrp=EgZjaHJvbWUyCggAEEUYFhgeGDkyDQgBEAAYhgMYgAQYigUyDQgCEAAYhgMYgAQYigUyDQgDEAAYhgMYgAQYigUyBwgEEAAY7wUyCggFEAAYgAQYogQyCggGEAAYgAQYogQyCggHEAAYgAQYogTSAQgxMjc4ajBqOagCALACAA&sourceid=chrome&ie=UTF-8) |
|  | State transition diagram and false minima problem | [**Link**](https://www.google.com/search?q=State+transition+diagram+and+false+minima+problem&rlz=1C1VDKB_enIN991IN991&oq=State+transition+diagram+and+false+minima+problem+&gs_lcrp=EgZjaHJvbWUyBggAEEUYOTIHCAEQIRiPAtIBBzk3NGowajmoAgCwAgA&sourceid=chrome&ie=UTF-8) |
|  | stochastic update | [**Link**](https://www.google.com/search?q=stochastic+update&rlz=1C1VDKB_enIN991IN991&oq=stochastic+update+&gs_lcrp=EgZjaHJvbWUyCggAEEUYFhgeGDkyBggBECMYJzIGCAIQIxgnMggIAxAAGBYYHjIICAQQABgWGB4yCAgFEAAYFhgeMg0IBhAAGIYDGIAEGIoFMg0IBxAAGIYDGIAEGIoFMg0ICBAAGIYDGIAEGIoFMgoICRAAGIAEGKIE0gEIMTYwN2owajmoAgCwAgA&sourceid=chrome&ie=UTF-8) |
|  | simulated annealing | [**Link**](https://www.google.com/search?q=simulated+annealing&rlz=1C1VDKB_enIN991IN991&oq=simulated+annealing+&gs_lcrp=EgZjaHJvbWUqBggAEEUYOzIGCAAQRRg7MgYIARAjGCcyDQgCEAAYkQIYgAQYigUyDAgDEAAYFBiHAhiABDIHCAQQABiABDIHCAUQABiABDIHCAYQABiABDIHCAcQABiABDIHCAgQABiABDIHCAkQABiABNIBCDE4ODVqMGo5qAIAsAIA&sourceid=chrome&ie=UTF-8) |
|  | Basic functional units of ANN for pattern recognition tasks: Pattern association | [**Link**](https://www.google.com/search?q=Basic+functional+units+of+ANN+for+pattern+recognition+tasks%3A+Pattern+association&rlz=1C1VDKB_enIN991IN991&oq=Basic+functional+units+of+ANN+for+pattern+recognition+tasks%3A+Pattern+association+&gs_lcrp=EgZjaHJvbWUyBggAEEUYOdIBCDE0MjFqMGo5qAIAsAIA&sourceid=chrome&ie=UTF-8) |
|  | pattern classification and pattern mapping tasks | [**Link**](https://www.google.com/search?q=pattern+classification+and+pattern+mapping+tasks&rlz=1C1VDKB_enIN991IN991&oq=pattern+classification+and+pattern+mapping+tasks&gs_lcrp=EgZjaHJvbWUyBggAEEUYOTIJCAEQIRgKGKAB0gEHNzMzajBqOagCALACAA&sourceid=chrome&ie=UTF-8) |