فصل ششم: منابع و مآخذ

## **Abstract:**

Earth's surface temperature increases and changes in rainfall Model play format of climate change are phenomena that these two have touched almost all sectors DygrchrkhhRatht waterIn the past, significant effects of climate change have also occurred frequently worn by posingafantasylandleftbehindAst.antzarmybiologicaldiversificationisthatitTghyyrbralgvyisVd madrayndhTasyrgzarbashdvdrpyDrabdhyrivers,the amount of wateravailable inriversandseasonalchangeslead to the need of the changemanagement Radrihtproper planning, pre-studied the contract.Duringthe most reliablemethodfor simulation offutureclimate variables. affected byclimate change. using data fromgeneral circulation modelarenecessarilyseeklarge-scaleGCMwhichhasGrdnd.draynsmallscalestudyofprecipitationand temperaturedailydataUrmiasynoptic stationslocatedin province ofAzerbaijanWest, during enter usedSDSMdownscalingclimate.BadrnzrgrftnDvsnaryv A<sup>T</sup> and B<sup>T</sup> for the next period from Y. 99 to Y. .., increasing irregular rainfall projected increase Dmapysh Main objective of this research study modeled the relationship between rainfall and runoff area (area Nazloochay) is using artificial neural network. As a result of the use of information river runoff Nazloochaei period basis as well as precipitation Vmay predicted by the model conditions for future periods, as well as the use of Neural Network Dynamic, the RanabNazloochaei River Urmia under Dysnaryvy A7 and B7 for the future were simulated models mentioned increase in runoff period later this River showed.

**Key words**:Climate change, Temperature, Precipitation, Runoff, Climatescenario, ANN, NazloochaeiUrmia, SDSM



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## The Thesis Submitted for the Degree of M.Sc (in the field of Water Resources Engineering)

## Evaluatian of Climate Change on Flow Discharge of Nazlou Chaie Basin in Urmia Useing General Circultion Model Output of Atmosphere and Artificial Neural Network

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