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Benefits of Artificial Intelligence AI: Iran cases study

Speaker

Dr. KIES FATIMA

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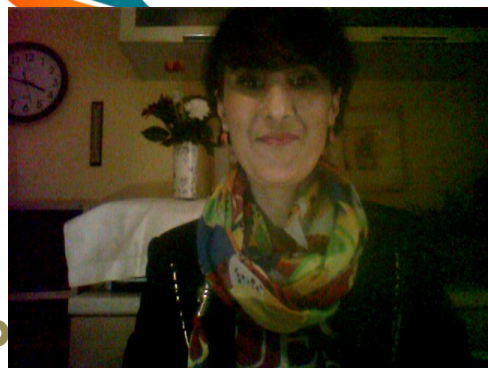

Benefits of Artificial Intelligence AI: Iran cases study

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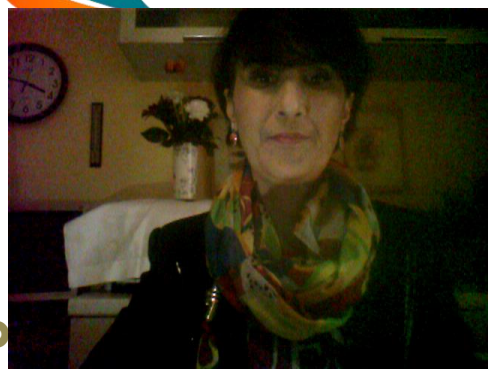
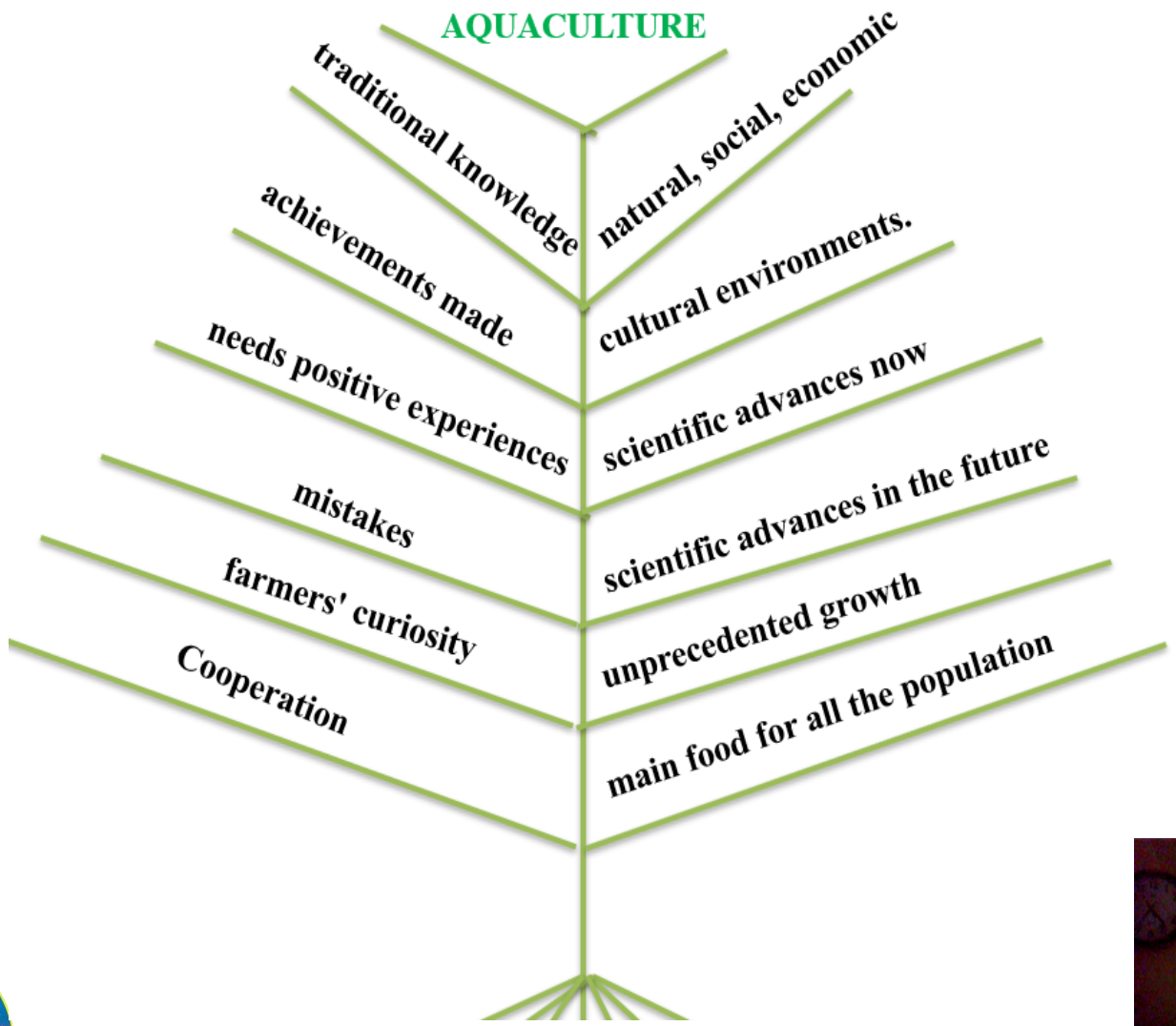


1. Introduction

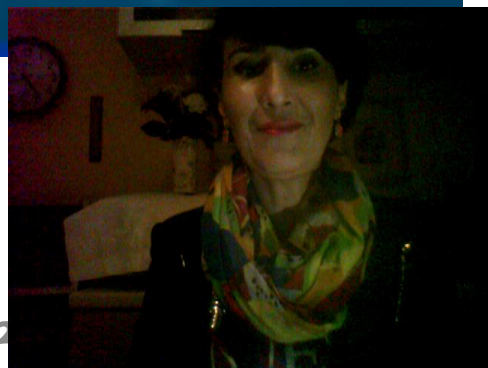


(**Source:** Designed by the authors)

2- Research importance

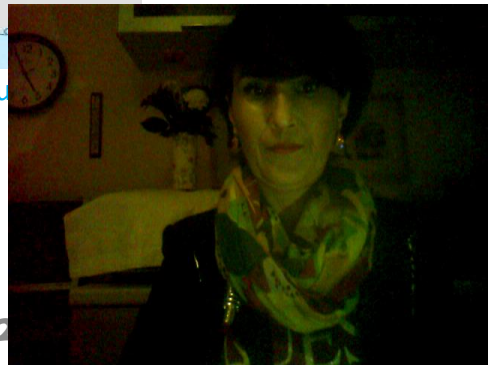
Due to the importance and novelty of research aimed at protecting fish farms from sudden death through early detection of fish diseases and following up and analyzing fish movement in ponds.

we have implemented some steps to make the system send a signal through a mobile app or A web application to notify those of concern about changes and environmental conditions of the farm that may threaten the safety of the fish farm.

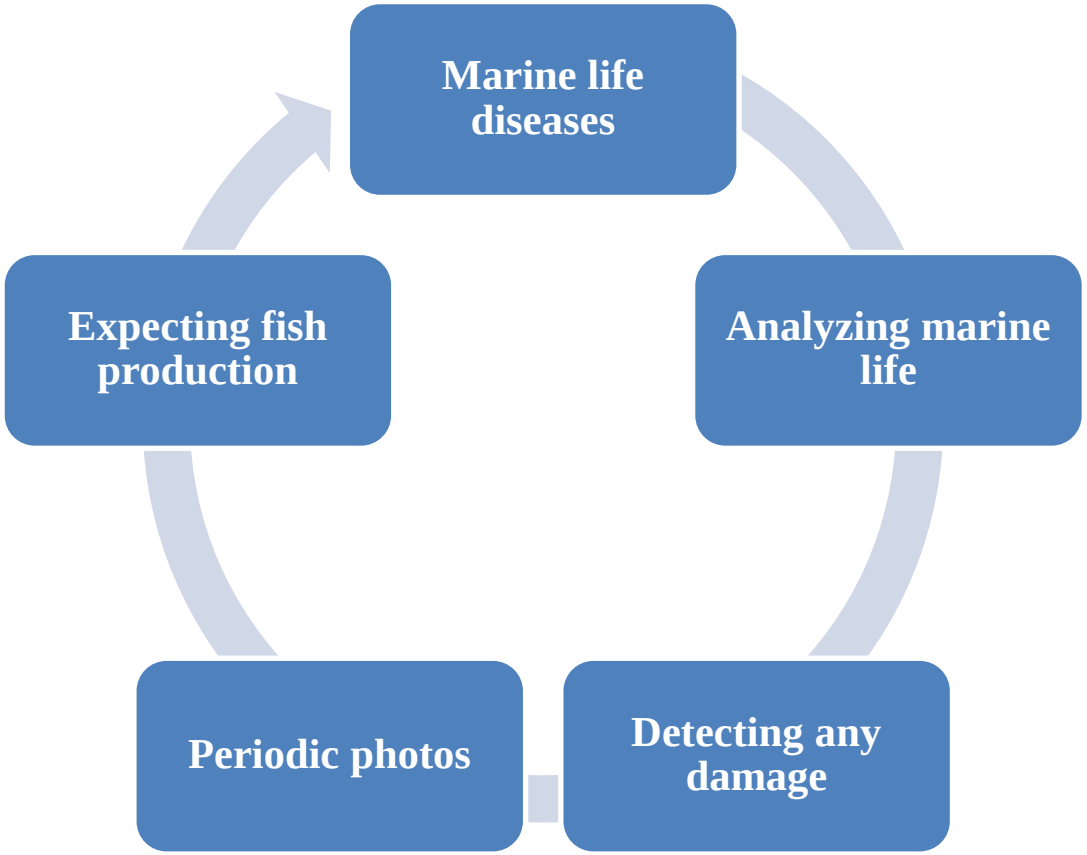


3- Case study (Iran)

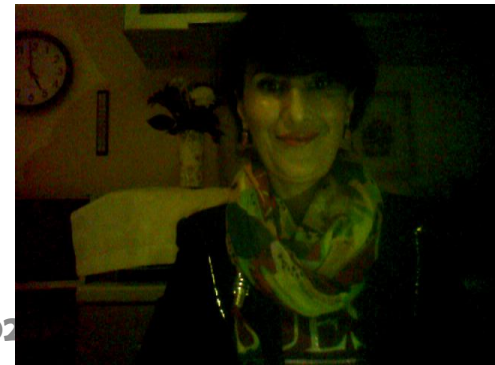
Source: https://www.innovationiseverywhere.com/iran-take-advantage-of-persian-diaspora-become-startu



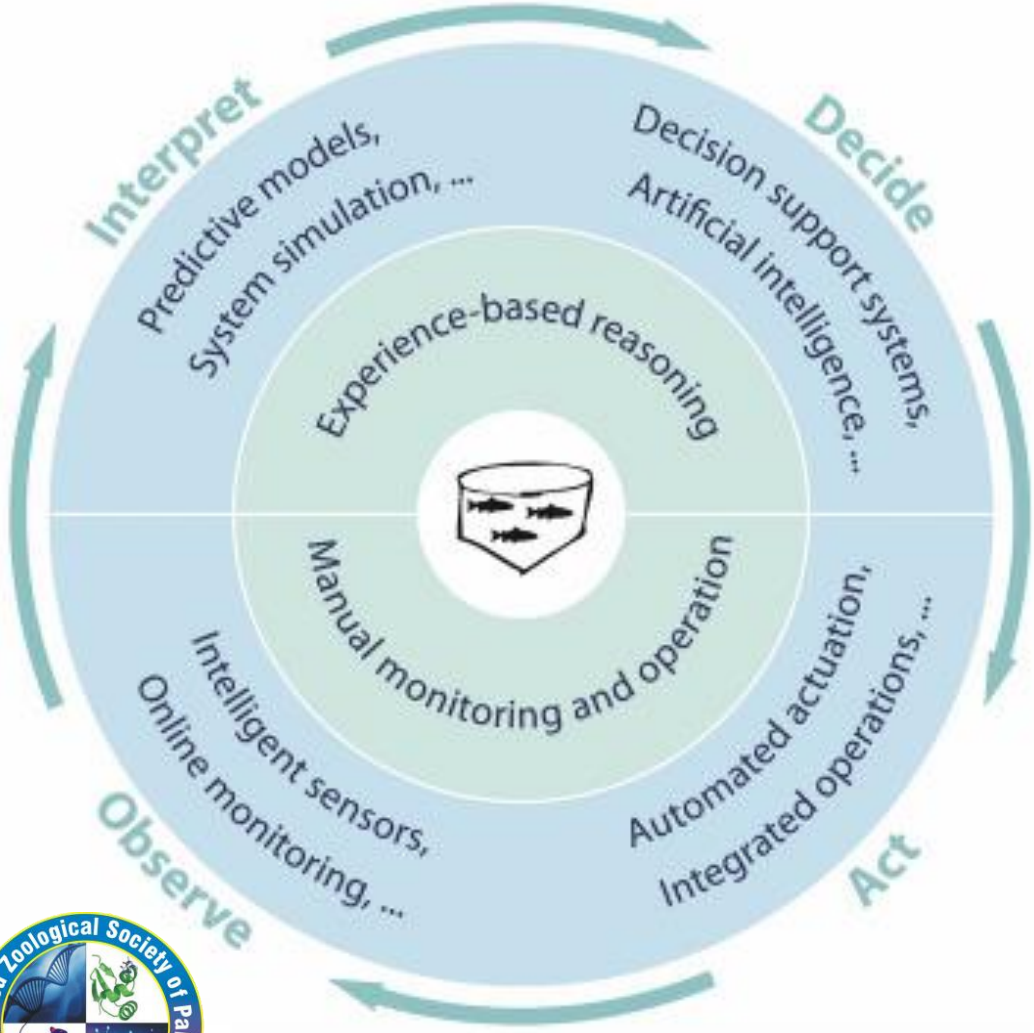
4- Research aims



(**Source:** Designed by the authors)



5- Artificial Intelligence Networks



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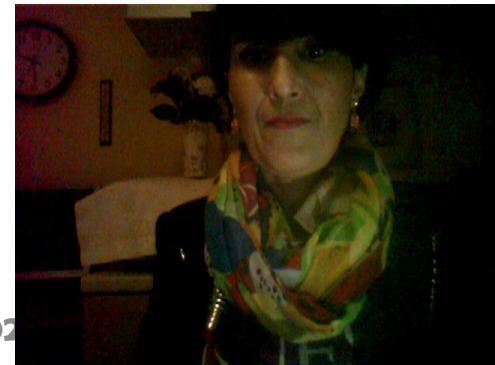
Special Issue: Engineering Advances in Precision Livestock Farming

Review

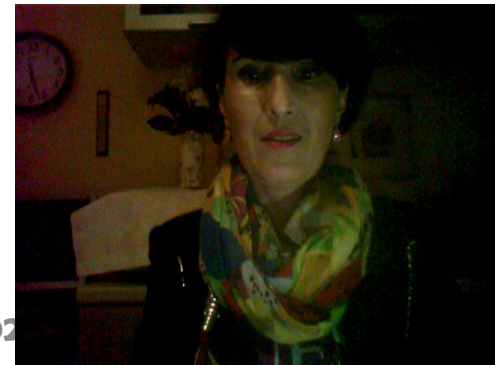
Precision fish farming: A new framework to improve production in aquaculture

Martin Føre [a,b,*], Kevin Frank [a], Tomas Norton [c], Eirik Svendsen [a], Jo Arve Alfredsen [b], Tim Dempster [d], Harkaitz Eguiraun [e,f], Win Watson [g], Annette Stahl [b], Leif Magne Sunde [a], Christian Schellewald [a], Kristoffer R. Skøien [b], Morten O. Alver [a,b], Daniel Berckmans [c]



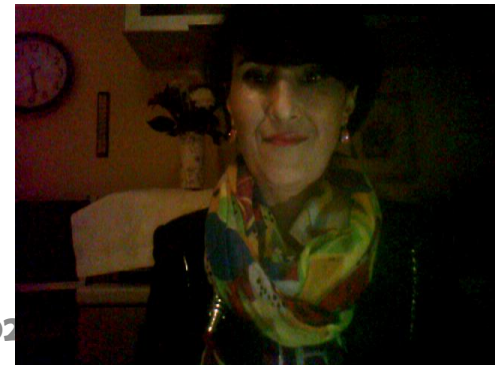
6- Verification and training

(**Source:** Designed by the authors)



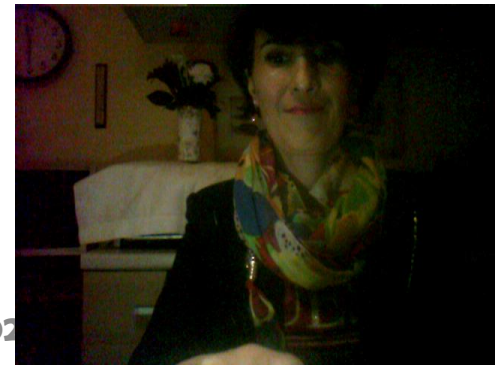
6- Verification and training

- ✓ Results are validated by taking a small sample and testing the model on data
- ✓ from another research project, or different countries.
- ✓ To ensure that the model generalizes the results as expected
- ✓ comparing it with other models before giving any output data.
- ✓ Validated verification of the accuracy of the results of the AI program,
- ✓ extensive testing
- ✓ The artificial intelligence program monitored previous events
- ✓ Data analyst within the Python program would rule out false positive results.
- ✓ To estimate the actual expectation rate of fish production quantities by AI

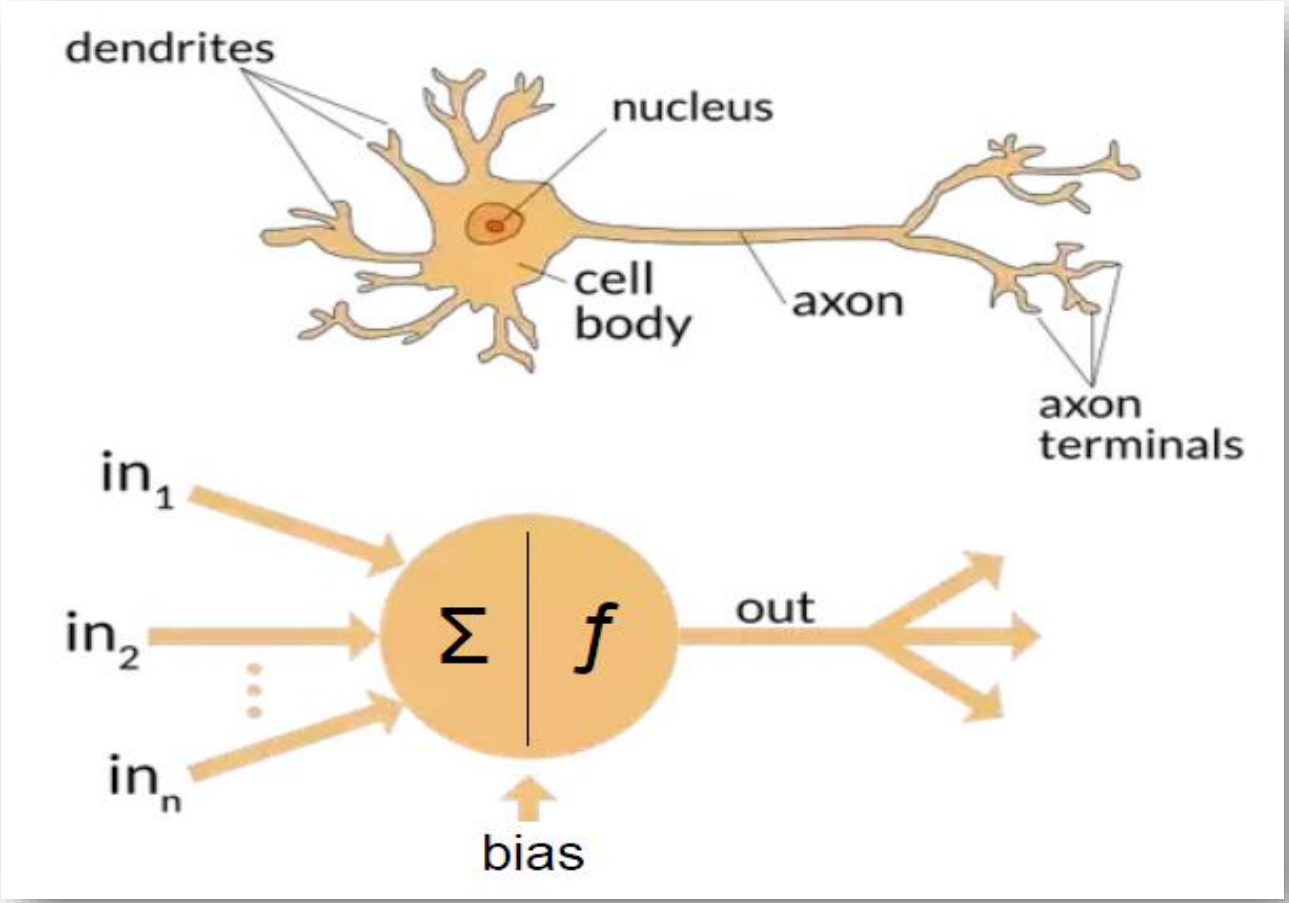


7- Model

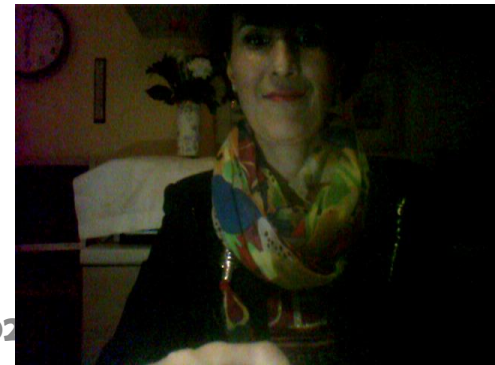
- ✓ To train artificial intelligence methods it is required to provide historical labeled data.
- ✓ We provided a guideline to utilize neural artificial networks models trained for a different location to a new location based on similarity between the selected locations.
- ✓ Results show that model relocation can significantly reduce the shortcoming generated from data unavailability for a particular location.



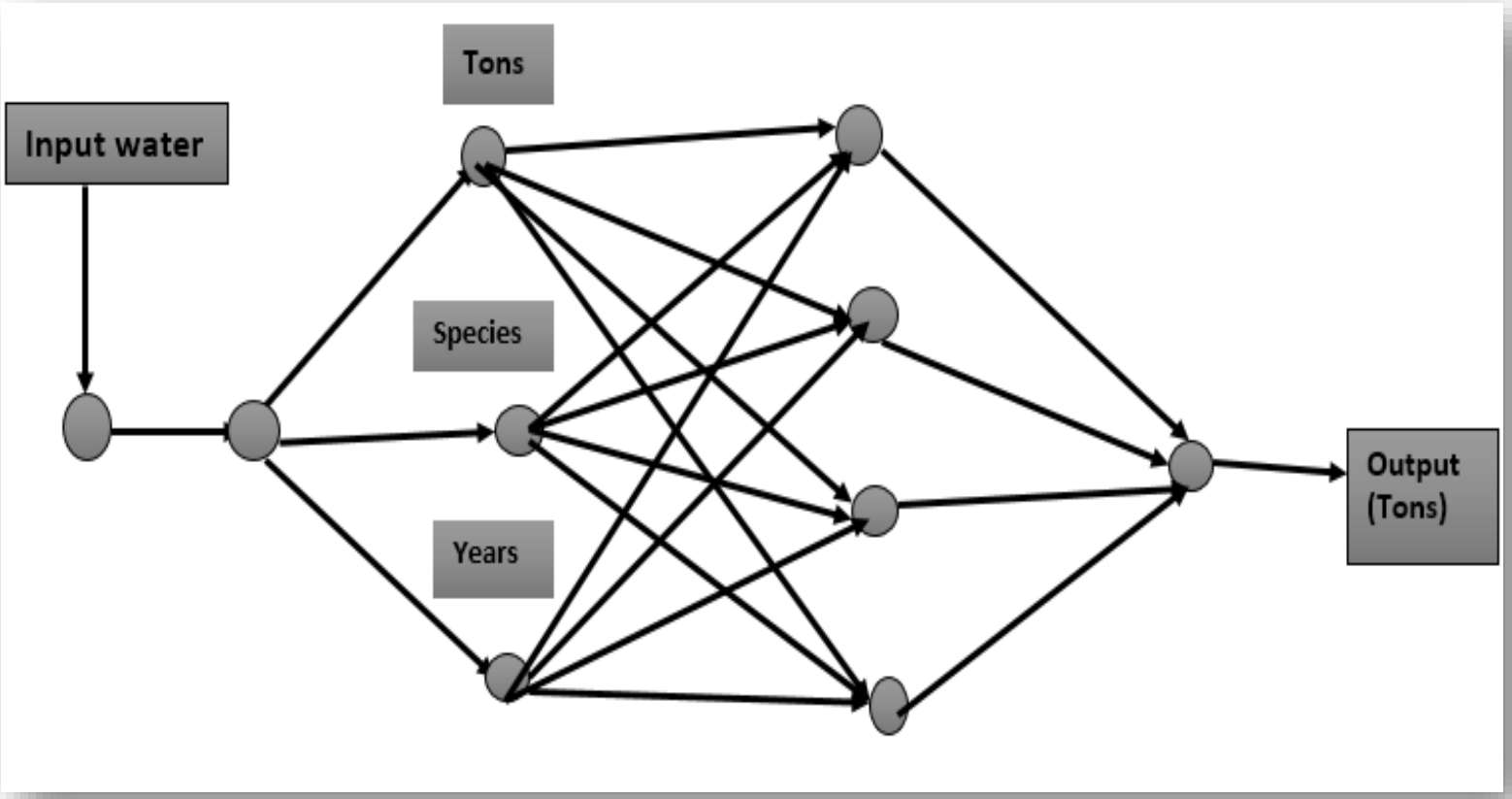
8- Results and Discussion



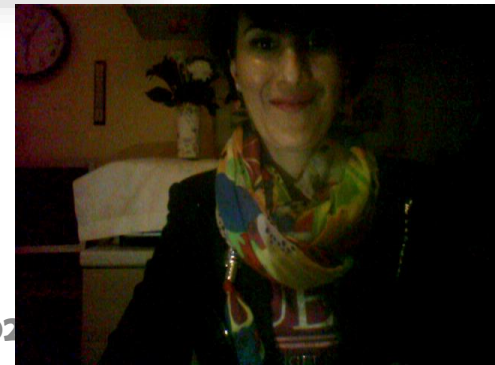
(Source: https://miro.medium.com/max/610/1*SJPacPhP4KDEB1AdhOFy_Q.png**)**



8- Results and Discussion



(**Source:** Kies et al, *in press*)



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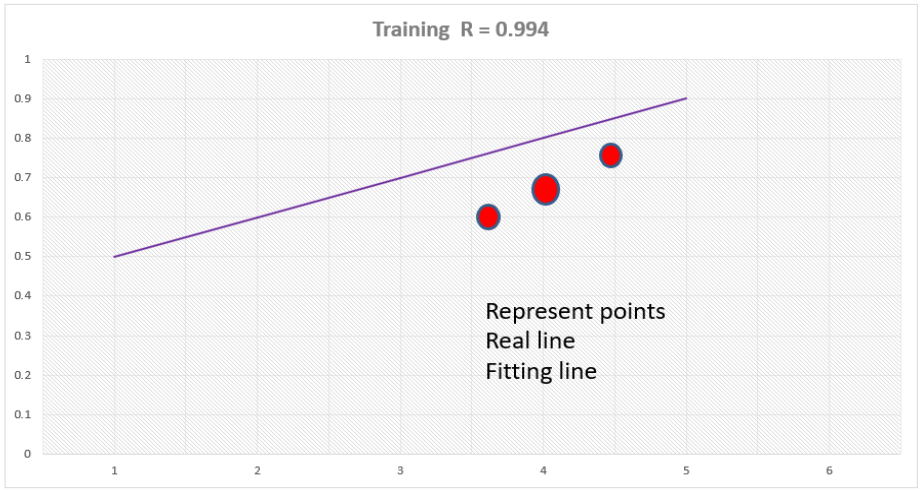

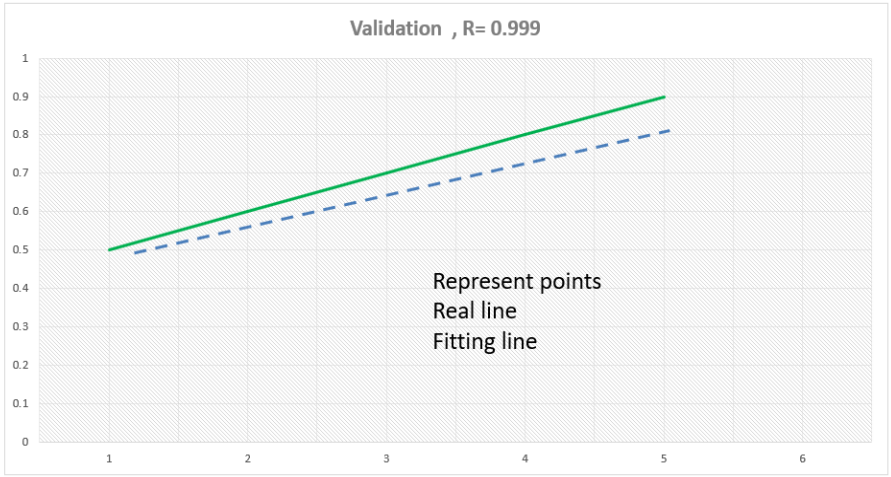

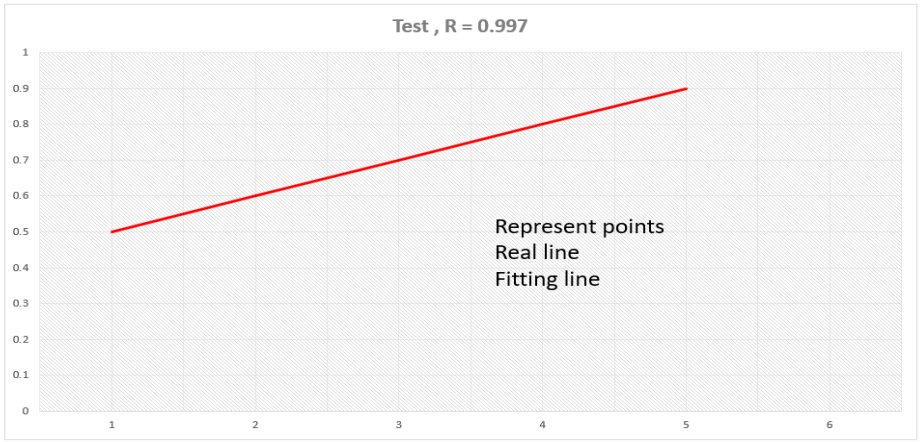

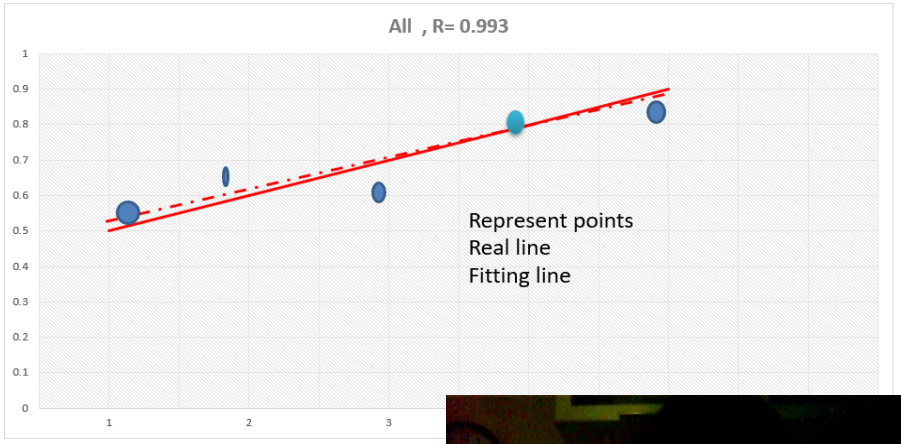

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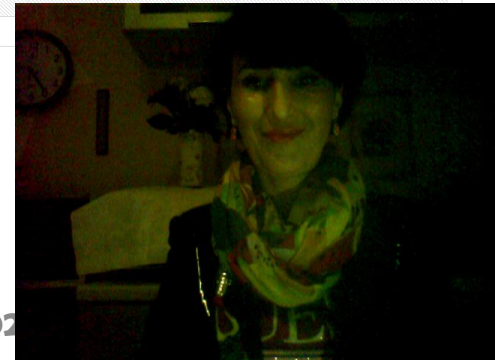

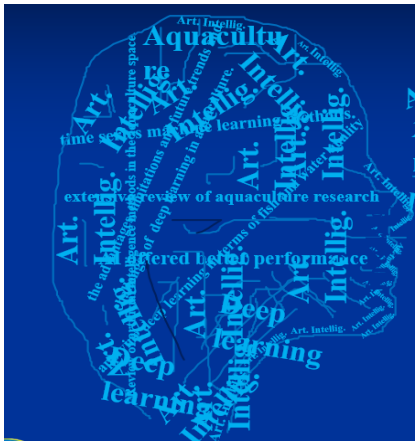

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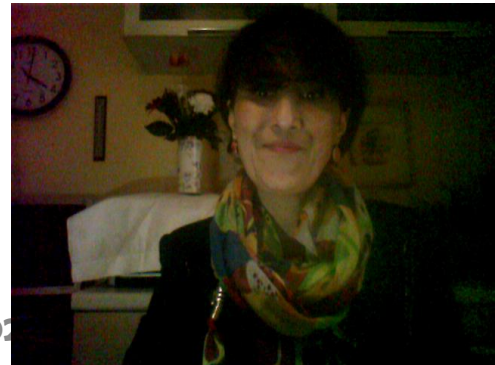

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