



المركز الوطني لضمان جودة واعتماد المؤسسات التعليمية التدريبية

National Center for Quality Assurance and Accreditation of
Educational and Training Institutes (NCQAAETIs)



المتطلبات الأكاديمية للبرنامج الأكاديمي
Academic requirements for the academic program



المتطلبات الأكاديمية للبرنامج الأكاديمي (Academic requirements for the academic program)

1. معلومات عامة (General information)

1	المؤسسة التعليمية	جامعة طرابلس
2	الكلية	العلوم
3	القسم/الشعبة الذي يقدم البرنامج	الجيوفيزياء
4	اسم البرنامج الأكاديمي	الدراسات العليا (ماجستير)
5	الرصيد الكلي للبرنامج (بالوحدة- ساعة)	38 وحدة
6	الشهادة العلمية الممنوحة عند استكمال البرنامج	الماجستير
7	الأقسام العلمية ذات العلاقة بالبرنامج	الجيولوجيا وهندسة النفط
8	اللغة المستخدمة في العملية التعليمية	العربية والإنجليزية
9	اسم منسق البرنامج	أ.د. رمضان المبروك الجدي
10	المراجع الخارجية للبرنامج (Bench marking)	
11	تاريخ منح اذن المزاولة للبرنامج	2002 م
12	الجهة التي منحت الإذن بالمزاولة (مجلس القسم/ الكلية/ الجامعة/ غيرها)	مجلس القسم والكلية
13	تاريخ بدء الدراسة الفعلية بالبرنامج	خريف 2002 م/ 2003 م

2. أهداف البرنامج (Program objectives)

تكتب الأهداف العام للبرنامج في صيغة المخرجات التي يفترض أن يكتسبها الخريج بعد إكمال البرنامج التعليمي بنجاح.

1. التعرف على الخواص الفيزيائية للمكونات والتراكيب الجيولوجية السطحية والغير سطحية
2. الإلمام الكامل بالبحث والطرق الجيوفيزيائية ذات العلاقة
3. التعرف على كيفية استخدام الأجهزة الجيوفيزيائية في موضوع البحث

3. المعايير الأكاديمية (Academic standards)

تكتب المواصفات والمعايير الأكاديمية للبرنامج التي توضح ما يجب أن يكون الطالب قد حققه عند إكماله البرنامج.

- إنجاز 30 وحدة دراسية بنجاح
- إنجاز رسالة (6 وحدات) ماجستير لمعالجة موضوع علمي في الجيوفيزياء

4. مقارنة ما يتم تقديمه مع المراجع الخارجية (Bench marking)

يتطابق البرنامج من ناحية عدد الوحدات ومواضيع البحث مع العديد من الجامعات الإقليمية والدولية في مجال الجيوفيزياء

5. نظام القبول (Admission system)

يجب على المؤسسة تحديد متطلبات الالتحاق للدراسة بالبرنامج موضحة التالي:

- التقدير الأكاديمي للطالب في المرحلة السابقة لهذا البرنامج .
- أي متطلبات أخرى ذات علاقة بالبرنامج وترى المؤسسة ضرورة توفرها بالمتقدم للدراسة.
- امتحان قبول ومقابلة شخصية إن رأت المؤسسة ذلك.
- شهادة إجادة لغة التدريس.
- تحديد مسؤولية المؤسسة والطالب في حال وجود تغيير في متطلبات القبول و الالتحاق بالدراسة.
- قدرة استيعاب البرنامج من الطلاب حسب الإمكانيات المتوفرة .
- نسبة الطلبة المتحقين بالدراسة فعليًا إلى نسبة الطلبة المقبولين ولم يلتحقوا بالدراسة ,يفضل إدراج نسبة آخر سنتين دراسيتين).
- دراسة مقارنة لإمكانات الطلبة المتحقين بالبرنامج نسبة إلى إمكانات الطلبة المتحقين بالمؤسسة ككل من حيث المستوى العلمي والمهارات ...إلخ.

● الحصول على بكالوريوس في علوم الأرض

● اجتياز امتحان القبول والمقابلة الشخصية

● يخضع بعض الطلبة المقبولين إلى الالتحاق ببرنامج خاص بحوي مقررات استيرادية أو تمهيدية

6. مخرجات التعلم المستهدفة للبرنامج (Programme intended learning outcomes)

يجب كتابة جميع مخرجات التعلم المستهدفة حتى يمكن تحديد المقررات الدراسية التي يتكون منها البرنامج التعليمي من خلال مخرجات التعلم المستهدفة التي تحققها، كما يجب إعطاء كل مخرج تعلم مستهدف رقمًا أو رمزاً حتى يمكن الرجوع إليه.

أ. المعرفة والفهم (Knowledge & understand)

يجب إدراج المعلومات الأساسية والمفاهيم الرئيسية التي يجب أن يكتسبها الطالب بعد إكمال البرنامج التعليمي بنجاح في مجالي المعرفة والفهم.

❖ المعرفة (Knowledge)

(القدرة على تذكر واسترجاع وتكرار المعلومات دون تغيير يُذكر)، مثل: معرفة الحقائق المحددة (أحداث محددة، تواريخ معينة، خصائص)، معرفة المصطلحات الفنية (مدلولات الرمز اللفظية وغير اللفظية)، معرفة الاصطلاحات المتعارف عليها للتعامل مع الظواهر أو المعارف، معرفة التصنيفات والفئات، معرفة المعايير، معرفة منهجية وطرق البحث، معرفة العموميات والمجردات (المبادئ والتعميمات ومعرفة النظريات والتراكيب المجردة).

❖ الفهم (Understand)

(القدرة على تفسير أو إعادة صياغة المعلومات التي حصلها الطالب في مستوى المعرفة بلغته الخاصة وتشمل الترجمة والتفسير والاستنتاج)، مثل: الشرح، الإيضاح، التفسير، الوصف، الرسم، الإشارة إلى.....إلخ.

أ1.	يفهم كيفية تجميع البيانات الجيوفيزيائية
أ2.	يتعرف على الطرق المختلفة لمعالجة البيانات الجيوفيزيائية
أ3.	يفسر البيانات الجيوفيزيائية

4. أ.	يصنف البيانات الجيوفيزيائية ويربطها بالتكوين الجيولوجية المختلفة
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ب. المهارات الذهنية (Mental skills)
تذكر المهارات الذهنية التي سيكتسبها الخريج بعد إكمال البرنامج بنجاح، مثل : التحليل، القدرة على التفكير الإبداعي، تحديد وحل المشكلات...إلخ.

1.ب	يقترح الطالب الطريقة الجيوفيزيائية الملائمة لحل المشكلة العلمية المتعلقة بالبحث
2.ب	يقارن بين النتائج المتحصل عليها مع المعلومات الجيولوجية المتوفرة

ج. المهارات العملية والمهنية (Practical & professional skills)
يجب إدراج المهارات التي يجب أن يكتسبها الطالب عند إكماله البرنامج التعليمي بنجاح، بما يمكنه من استخدام ما درسه في التطبيقات المهنية، على سبيل المثال استخدام بعض الأجهزة والمعدات الإلكترونية، القدرة على تشخيص مرض ما، القيام بتصميم هندسي، تصميم برنامج الحاسوب، إجراء بحوث علمية، امتحانات، إلخ.

1.ج	تصميم وإعداد خطة المسح الجيوفيزيائي الذي يسبق أخذ القياسات
2.ج	استخدام الأجهزة الخاصة بالمسح الجيوفيزيائي
3.ج	القدرة على استخدام برمجيات الحاسوب في التفسير للطرق المستخدمة في البحث

د. المهارات العامة والمنقولة (Generic and transferable skills)
تدرج مختلف المهارات العامة أو المهارات القابلة للاستخدام في مجالات العمل التي يجب أن يكتسبها الطالب عند إكماله البرنامج بنجاح، بحيث يمكن تطبيقها في أي مجال وتتضمن: المهارات اللغوية/ الاتصال والتواصل التحريري والشفوي/ استخدام الأدوات التقنية الحديثة/ تقنية المعلومات والاتصالات/ التعامل مع الحاسب الآلي/ العمل في فريق/ حل المشكلات/ الإدارة.....إلخ.

1.د	أن يكون الطالب قادر على استخدام وسائل التقنيات الحديثة
2.د	أن يكون الطالب قادر على العمل في فريق بحثي
3.د	يستطيع الطالب كتابة تقارير علمية بلغة علمية سليمة

7. مكونات (محتويات) البرنامج (Program contents)

4. عدد الساعات الأسبوعية

المحاضرات	20 ساعة	المعامل	30 ساعة	التدريب	المجموع	50 ساعة
عدد الوحدات/ الساعات للمقررات العامة				العدد	النسبة	
عدد الوحدات/ الساعات للمقررات التخصصية			30 وحدة/50 ساعة	العدد	النسبة	10
عدد الوحدات/ الساعات للمقررات الاختيارية				العدد	النسبة	
عدد الوحدات/ الساعات للمقررات الداعمة			6 وحدات/ 6 ساعات	العدد	النسبة	2
التدريب العملي/ الميداني				العدد	النسبة	
أخرى			12 وحدة/ 20 ساعة	العدد	النسبة	4

8. مقررات البرنامج (Program Courses)

1. المقررات الأساسية

مخرجات التعلم المستهدفة التي يتم تغطيتها (الرمز)	الأسبقيات	عدد الساعات/الأسبوع			عدد الوحدات	اسم المقرر (عربي+انجليزي)	رمز المقرر
		تدريب	معمل	محاضرات			
	GP314, GP327, GP326	0	3	2	3	Potential Field Theory	GP 601
	GP313, GP326	0	3	2	3	Geo-electrical Methods	GP 604
	GP415	0	3	2	3	Mathematical Methods in Geophysics	GP 600
	GP421	0	3	2	3	Theoretical Seismology	GP 602
	GP413	0	3	2	3	Nuclear Geophysics	GP 607
	GP321	0	3	2	3	Borehole Geophysics	GP 606
	-	0	3	2	3	Geophysical Seminar	GP 635
	-	-	-	-	6	M.Sc. Thesis	GP 636
		0	18	12	27	المجموع	

2. المقررات الاختيارية: متطلبات التخصص الاختيارية (12) ساعات وتشمل المقررات التالية:

مخرجات التعلم المستهدفة التي يتم تغطيتها (الرمز)	الأسبقيات	عدد الساعات/الأسبوع			عدد الوحدات	اسم المقرر (عربي+انجليزي)	رمز المقرر
		تدريب	معمل	محاضرات			
	GP415, GP424, GP600	0	3	2	3	Geophysical Inverse Theory	GP 610
	GP415, GP424, GP600	0	3	2	3	Geophysical Signal Analysis	GP 611

	GP418	0	3	2	3	Applied Environmental Geophysics	GP 612
	GP600	0	3	2	3	Computer Applications in Geophysics	GP 613
	GP602, GP312	0	3	2	3	Advanced Seismic Processing	GP 614
	GP602, GP312	0	3	2	3	Reflection Seismic Data Processing	GP 615
	GP602, GP312	0	3	2	3	Seismic Stratigraphy	GP 616
	GP616, GP600	0	3	2	3	Seismic Interpretation	GP 617
	GP602	0	3	2	3	EQ – Seismology	GP 618
	GP427	0	3	2	3	Remote Sensing and Photography	GP 620
	GP220, GP321	0	3	2	3	Rock Properties	GP 622
	GP220, GP606	0	3	2	3	Formation Evaluation	GP 623
	GP604	0	3	2	3	Geoelectrical Exploration	GP 624
	GP600, GP601	0	3	2	3	Gravity And Magnetic Prospecting	GP 625
	GP418, GP413	0	3	2	3	Isotope Geophysics	GP 628
	GE322, GP421, GP602, GP433	0	3	2	3	Basin Analysis	GP 630
	تعتمد على التخصص	0	3	2	3	Field Geophysics	GP 631
	تعتمد على التخصص	0	3	2	3	Topics in Geophysics	GP 634
		0	57	38	54/12	المجموع	

3. المقررات الداعمة

مخرجات التعلم المستهدفة التي يتم تغطيتها (الرمز)	الأسبقيات	عدد الساعات/الأسبوع			عدد الوحدات	اسم المقرر (عربي+انجليزي)	رمز المقرر
		تدريب	معمل	محاضرات			
	-	0	0	2	2	Technical Writing	TW 600
		0	0	2	2	المجموع	

9. طرق التعليم والتعلم (Teaching and learning methods)

يجب إعطاء نبذة مختصرة عن طرق التعليم والتعلم لكل برنامج تعليمي، مع تحديد مدى توظيف كل طريقة من طرق التعليم المستخدمة كنسب مئوية ما أمكن ذلك(%) من عدد المحاضرات، الزيارات الميدانية، الأنشطة العملية، جمع المعلومات، دراسة الحالة وحلقات المناقشة...إلخ.

5. محاضرات نظرية

6. تدريبات عملية

7. زيارات حقلية وميدانية

8. ندوة (سيمينارات)

10. طرق التقييم (Methods of assessments)

يجب التوضيح وبالتفصيل طرق التقييم المتبعة في عملية التعليم والتعلم بالبرنامج مع تحديد المقررات التي لا تخضع لطرق التقييم العامة المتبعة، - إن وجدت - وكيفية تقييمها، على سبيل المثال: جميع مقررات الفصل الأول تقييم بطريقة 60% امتحانات تحريرية وشفوية 40% دراسات حالة وأنشطة علمية... إلخ.

السنة/ الفصل الدراسي	طريقة التقييم/ الوزن/ النسبة
امال الفصل والعملي	50%
امتحان نهائي	50%

11. تقييم البرنامج (Programme evaluation)

يجب تحديد الآلية والأساليب المستخدمة في تقييم البرنامج (مخرجات التعلم المستهدفة) بشكل دوري ومنظم، متضمنة مجموعة من المستفيدين من البرنامج (مؤسسات سوق العمل المستهدف)، والطلاب والخريجين وأعضاء هيئة التدريس والمقيمين الخارجيين.

المشارك في التقييم	الأسلوب	النسبة/العدد
سوق العمل	استبيان	15%
طلاب السنة النهائية	استبيان	25%
الخريجون	اجتياز امتحان	20%
أعضاء هيئة التدريس	تقارير المساقات	30%
المقيمون الخارجيون	استطلاع الرأي والمتابعة	10%
جهات أخرى		

12. تصنيف التقييم (Rating assessment)

يجب تحديد تصنيف التقييم المتبع (تقيماً رقمياً أو أبجدياً)، إضافة إلى تحديد الحد الأدنى المسموح به لاجتياز المقرر/ الفصل الدراسي، أو السنة الدراسية، وبالتالي بالتسجيل في المقرر التالي/ الفصل الدراسي التالي أو السنة الدراسية التالية، يمكن الاسترشاد بالنموذج التالي في عملية التقييم:

النسبة المئوية (%)	المصطلح
أقل من 65%	راسب
أكثر من 65%	ناجح

من 65% إلى 74.9%	جيد
من 75% إلى 84.9%	جيد جداً
من 85% إلى 100%	ممتاز

13. متطلبات الاستمرار في الدراسة بالبرنامج (Requirements to continue studying in the program)

التفاصيل (يقتبس من أويشار إلى اللوائح المنظمة في حال وجودها)

9. تطبيق اللوائح والقوانين بشكل فعال على سبيل المثال:

- لإئحة 501 لسنة 2010م
- لإئحة كلية العلوم للدراسات العليا

14. مصادر التعليم والتعلم (Teaching and learning resources)

أعضاء هيئة التدريس: في الجدول التالي حدد عدد أعضاء هيئة التدريس المسؤولين عن تنفيذ البرنامج من تدريس وبحث علمي وخدمات أخرى ذات علاقة بالبرنامج:

المؤهل العلمي	الدرجة العلمية	عدد الأساتذة	متوسط عدد الساعات التدريسية أسبوعياً
دكتوراه	أستاذ	5	5 ساعات أسبوعياً
دكتوراه	أستاذ مشارك	3	5 ساعات أسبوعياً
دكتوراه	أستاذ مساعد	4	5 ساعات أسبوعياً

15. معلومات يجب توفرها (Information must be available)

قائمة بأعضاء هيئة التدريس موضحاً بها الدرجة العلمية والتخصص.

الاسم	المؤهل العلمي	الدرجة العلمية	التخصص	المهام المكلف بها
رمضان المبروك محمد الجدي	دكتوراه	أستاذ	جيوفيزياء الأبار وتقييم التكوين	رئيس قسم الجيوفيزياء + تدريس
عبد النور الشارف بن سليمان	دكتوراه	أستاذ	علم الزلازل	تدريس + عضو بلجنة الجودة
بشير محمد امحمد يوشع	دكتوراه	أستاذ	جيوفيزياء إشعاعية	تدريس + عضو بلجنة الدراسات العليا
مفتاح علي عبد السلام أبو عائشة	دكتوراه	أستاذ مشارك	طرق استكشاف جيوكهربية	تدريس + عضو بلجنة المناهج
السنوسي محمد السنوسي حرشة	دكتوراه	أستاذ مشارك	طرق استكشاف سزمية	تدريس + عضو بلجنة الدراسة والإمتحانات
محمد رضا إبراهيم البكيك	دكتوراه	أستاذ	تحليل إشارات جيوفيزيائية	(أستاذ شرف) تدريس
عبد الرزاق محمد علي اوشاح	دكتوراه	أستاذ مشارك	طرق سزمية	(متعاون) تدريس
أحمد سالم علي صاهيل	دكتوراه	أستاذ مساعد	طرق مجال	(متعاون) تدريس

	الجهد			
(متعاون) تدريس	تتابع طبقي سزمي	أستاذ مساعد	دكتوراه	حسين بشير حسين القنوش
(متعاون) تدريس	تفسير سزمي	أستاذ مساعد	دكتوراه	محمد عبد الله سليم
(متعاون) تدريس	طرق سزمية	أستاذ	دكتوراه	محمد مسعود عبد القادر العزيمي
(متعاون) تدريس	النظرية العكسية في الجيوفيزياء	أستاذ مساعد	دكتوراه	علي عمر علي بن غيث

- السيرة الذاتية لجميع الأساتذة بالبرنامج.

السيرة الذاتية للدكتور رمضان المبروك الجدي

الاسم : أ.د. رمضان المبروك محمد - الجدي

الدرجة الأكاديمية : دكتوراه-

الدرجة العلمية : أستاذ - ((professor))

مكان وتاريخ الميلاد: 3 / 3 / 1959 - م - بني وليد ليبيا

الحالة الاجتماعية : متزوج جنسية الزوجة : ليبية

- يناير 1984 م : تحصل على البكالوريوس في الهندسة الجيوفيزيائية كلية هندسة النفط والتعدين جامعة الفاتح (جامعة طرابلس حالياً) بتقدير عام جيد جداً.

- يونيو 1986 م : تحصل على درجة الماجستير من أكاديمية جوبكين للنفط والغاز بموسكو (الجامعة الروسية للنفط والغاز حالياً) تخصص جيوفيزياء الابار وتقييم التكاوين.

- يونيو 1990 م : تحصل على درجة الدكتوراه من أكاديمية جوبكين للنفط والغاز بموسكو (الجامعة الروسية للنفط والغاز حالياً) تخصص جيوفيزياء الابار وتقييم التكاوين.

1990 - م - 1995 م : اخصائي بشركة الزويتينة للنفط.

1995 - م - 1997 م : عضو هيئة تدريس بقسم الجيوفيزياء كلية العلوم جامعة طرابلس.

1997 - م - 2004 م : بعد إختياره شعبياً، تم نديه إلى الخارجية الليبية سفيراً مقيماً بدولة كازاخستان وغير مقيم بدول آسيا الوسطى الأخرى.

2004 - م - 2008 م : عضو هيئة تدريس بجامعة طرابلس قسم الجيوفيزياء ورئيس لجنة الدراسات العليا.

2008 - م - 2009 م : إجازة تفرغ علمي بجامعة خاركوف الحكومية بأوكرانيا.

2009 - م - 2012 م : عضو هيئة تدريس ورئيس لجنة الدراسات العليا.

2012 - م - 2013 م : إجازة تفرغ علمي للقيام ببحوث علمية بجامعة أوكلاهوما بأمریکا كما منحته صفة عضو هيئة تدريس بها.

2013 - م - 2014 م : عضو هيئة تدريس بقسم الجيوفيزياء وعضو بلجنة الجودة.

2014 - م - 2018 م : عضو هيئة تدريس بقسم الجيوفيزياء ورئيس لجنة الدراسات العليا.

2019 - م إلى الآن : رئيس قسم الجيوفيزياء ورئيس لجنة الدراسات العليا.

1995 - م إلى الآن : من المؤسسين وعضو اللجنة العلمية بالجمعية الوطنية للمتفوقين - والمواهب.

-تحصل 7 طلاب تحت إشرافه على درجة الماجستير في مجال الجيوفيزياء وممتحن في العديد من رسائل الماجستير الأخرى في مجال التخصص وحالياً يشرف على 4 طلاب.

- اللغات التي يجيدها : العربية الإنجليزية الروسية.

- مؤلف لعدد 5 كتب و أكثر من 30 بحثاً في مجالات التخصص.

-مشارك في العشرات من المؤتمرات العلمية على المستوى المحلي والإقليمي والدولي.
-مقيم للعديد من الترقّيات العلمية لأعضاء هيئة تدريس ومحكم ومقيم في عدد من الورقات العلمية المنشورة بالمجلات العلمية المختلفة.

-عضو بالإتحاد الدولي للجيوفيزيائيين بالولايات المتحدة الأمريكية.

-عضو بجمعية علوم الأرض الأفريقية وجمعية علوم الأرض الليبية.

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RESUME of Abdunnur E. Ben Suleiman

Education:

B.S. Geology (Geology and Physics). University of Tripoli, LIBYA (1976)

M.S. Geosciences (Geophysics). University of Texas at El Paso, USA (1984)

Ph.D. Geosciences (Geophysics). University of Texas at El Paso, USA (1993)

Professional Record:

Jan. 1995 - Present: Professor of Geophysics, Dept. of Geophysics (UOT)

Sept. 2011- July 2016: Vice Dean, Faculty of Science, University of Tripoli (UOT)

Oct. 2008 - Sept. 2011: Chairman, Faculty of Science, Department of Geophysics (UOT)

Oct. 2007 - Present: Professor of Geophysics, Faculty of Science, (UOT)

Oct. 2003 - Oct. 2007: Associate Professor, Faculty of Science, (UOT)

July 1995 - Oct. 2003: Assistant Professor, Faculty of Science, (UOT)

Sept. 1987 - Sept. 1990: Teacher Assistant, University of Texas at El Paso (UTEP)

Sept. 1990 - Sept. 1993: Research Assistant, University of Texas at El Paso (UTEP)

Dec. 1976 - Dec. 1981: Exploration Geophysicist, Oasis Oil Company of Libya (WAHA)

Professional Societies:

Earth Science Society of Libya (ESSL) American Geophysical Union (AGU), Geological Society of America (GSA), Seismological Society of America (SSA), Society of Exploration Geophysicists (SEG), American Association of Petroleum Geologists (AAPG), El Paso Geological Society, European Geoscience Union (EGU).

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Married, 2 children Birth date: April 22 1954 Birthplace: Tripoli, Libya

Articles Published

1. Mustapha Meghraoui, Paulina Amponsah, Ayadi A, Ata'ay Ayele, Ateba Becoa, Abdunnur Ben Suleman, Damien Divaux, Mohamed, ElGabry, Rui-Manuel Fernandes, Vunganal Midzi, and Maghda Roos, 2014, The Seismotectonic map of Africa, **Episodes** Vol. 39, no. 1, p. 9-182.

2. Mourabit T, Abou Elenean K. M, Ayadi A, Benouar D., Ben Suleman A., Bezzeghoud M. Cheddadi A., Chourak M., ElGabry M. N., Harbi A., Hfaiedh M., Hussein H. M., Kacem J., Ksentini A., Jabour N., Magrin A., Maouche S., Meghraoui M., Ousadou F., Panza G.F, Peresan A, Romdhane N., Vaccari F. and Zuccolo E. Neo-Deterministic Seismic Hazard Assessment in North-Africa, 2013, **Journal of Seismology**.

3. Fawzi. Abosetta, and Abdunnur Ben Suleman, 2010, Recent earthquake activity in northeastern Libya, **3rd**

conference on basic sciences, ICTP, Gharyan, Libya

4. Abdunnur Suleman, 2007, Active Tectonics And Earthquakes Of Cyrenaica Platform And Sirt Basin, Northern Libya, **2nd International Conference on the Geology of the Tethys**, Cairo University, Volume 1, El-sayed A. Youssef Editor, p. 39-44..

5. Abdunnur Suleman, 2006, Gravity Investigations of The Sirt basin Rift System, Northern and Central Libya, **Inter., Conf. Geol. Arab World (GAW 8)**, Cairo Univ., Egypt, p. 201-206.

5. Abdunnur Suleiman and Salem Mohamed, 2006, The Tectonic Setting of the Cyrenaica Platform and Adjacent Areas, NE Libya: Implication of Gravity Investigations, **Geology of East Libya**, Bengazi-Libya.

7. Abdunnur Suleman, 2004, Reappraisal of the seismic activity and seismic hazard assessments of Libya (in Arabic), in: **Natural Hazards and seismic networking in the Arab World**, Gharyan, Libya, p. 188-196.

8. Abdunnur Suleiman, Paola Albinì. And Paola Migliavacca, 2004, A short Introduction to historical Earthquakes in Libya, **ANNALS OF GEOPHYSICS**, VOL. 47, N. 2/3, April/June 2004.

9. Abdunnur Suleman, I. Daba, 2001, Seismicity of Sirt and surrounding areas: Detailed investigations and future planning (in Arabic), **First conference on the Natural Resources in the Sirt area**, Sirt, Libya, PP. 13.

10. S. A. El-Mozoughi and Abdunnur Suleiman, 2000, Effective elastic thickness of the lithosphere and mechanism of isostatic compensation in Libya, **5th International Conference on the Geology of the Arab World**, Cairo University, pp. 1077-1084.

11. Suzan van der Lee, Federica Marone, Mark van der Meijde, Domenico Giardini, Anne Deschamps, Lucia Margheriti, Peter Burkett, Sean C. Solomon, Paulo M. Alves, Makis Chouliaras, Abdurazzag Eshwehdi, Abdunnur Suleiman, Hadi Gashut, Marijan Herak, Ramon Ortiz, Jose Martin Davila, Arantza Ugalde, Josep Vila, and Karim Yelles, 2001, New seismographic data from the Eurasia-Africa plate boundary region, **EOS, Transactions, American Geophysical Union**, V. 82, pp. 637-646.

12. A. Nyblade, I. Suleiman, R. Roy, B. Pursell, Abdunnur Suleiman, D. Doser, and G. Keller, 1996, Terrestrial heat flow in Sirt Basin , Libya, and the pattern of heat flow across northern Africa, **Journal of Geophysical Research**, v. 101, No. B8, pp. 17737-17746.

13. Abdunnur Suleiman and Dian Doser, 1995, Seismicity, seismotectonics and earthquake hazards of Libya, with detailed analysis of the April 19, 1935, M=7.1 earthquake sequence, **Geophysical Journal International**, v.120, pp.312-322.

14. Abdunnur Suleiman, D.I. Doser and D. Yarwood, 1993, Source parameters of earthquakes along the coastal margin of West Africa and comparisons with earthquakes in other coastal margin settings, **Tectonophysics**, v. 222, pp.79-91

15. Suleiman, I.S., G. R. Keller, and **A.S. Suleiman**, 1991, Gravity study of the Sirt basin, Libya, in M.J. Salem, A.M. Sbeta, and M.R. Bakbak (eds.): **The Geology of Libya, Volume VI, Elsevier, Amsterdam**, p. 2462-2468.

16. **Suleiman, A.S.** and G. R. Keller, 1985, A geophysical study of basement structure in northeastern New Mexico: **New Mexico. Geol. Soc., 36th Field Conf. Guidebook**, p. 153-159.

Masters These: Abdunnur Suleiman, 1984, Integrated geophysical and subsurface studies of tectonic features in NE New Mexico and the adjacent regions, pp.102, University of Texas at El Paso (UTEP).

Doctoral Dissertation: Abdunnur Suleiman, 1993, Geophysics of the rifts associated with the Sirt Basin (North Africa) and the Anadarcó Basin (North America), pp.150, University of Texas at El Paso (UTEP).

Published Reports

1. Omar Hamuda, **Abdunnur Ben Suleman**, Ali Speta, Mohamed Amgaily, and Abdurezag Mohamed, 1996, Libyan earthquakes, a study and recommendations (in Arabic), Committee for the seismicity and the earth's crust in Libya, Internal report, **Libyan Center for Remote Sensing and Space Science (LCRSSS)**, 104 pages.

2. Omar Hammuda, Abdalhafed Bezan, **Abdunnur Ben Suleman**, Ahmed Saheel, and Bashir Almejrab, 2006, Gravity Compilation of Libya (Internal Report): A review and evaluation with integration of geological data and interpretation, **Libyan Petroleum Institute (LPI)**, P.O., BOX 6431, Tripoli, Libya, 108 pages.

Master's Thesis Directed

1. Faten Mohamed Khalfalla, Zero Offset vertical seismic profile "ZVSP" of Concession C65-47, Libya

2. Yousef Melad Aboshalla, Seismic and gravity studies of eastern Sirt Basin and southwestern Cyrenaica platform, Libya.

3. Adel Almagabok Attwejer, Seismic interpretation and aquifer study of concession (NC-174) Murzuq Basin-Libya

4. Abdul-Ghfar Abdalla Abdusalam, Seismic inversion techniques to predict porosity of Upper Sabil reservoir in Tocra field block, NC206, Sirt Basin-LIBYA.

5. Abdul-Majed Omar Abomahlola, Static corrections due to sand dunes in Murzuq basin, Southeastern Libya

6. Omar Emhemed Omar, Seismic and Gravity Studies of Zagut Oil Field, Sirt Basin-LIBYA.
7. Ahmd Dwas, 2018, Four blocjs prestac 3-Dimensional seismic merg processing, concession 06, Sirt Basin-Libya.
8. Abdulmonem A. Swessi, 2018, Seismotectonics and earthquake hazards of Northwestern Libya

CURRICULUM VITA

Name: Bashir Mohamed YOUSHAH

Place and Date of Birth: Ghadames (Libya), 1952

Martial State: married and father of 2 boys and a girl

Education history:

- 1971-1974 University of Tripoli-Libya (Al FATAH now)
- 1977-1980 Ohio University (USA)
- 1993-2001 University of Mohammad V(Rabat-MAROC)

Academic Qualifications

- 1974 - B Sc. Geology University of Tripoli (Tripoli-Libya)
- 1980 - MS Ohio University (Athens Ohio-USA)
- 2002- Ph.D University of Mohammad V(Rabat-MAROC)

Spoken languages

- Arabic : fluently spoken reading and writing
- English: fluently spoken reading and writing
- French: excellently spoken, reading and writing

Employment History

1974-1976 field geologist, Department of Geological Researches and Mining, Industrial Researches Centre Tripoli-Libya

1980-1989 Director, of Exploration and Geophysics section, Industrial Researches Center Tripoli-Libya

1990-1992 Lecturer, and Head of Geology Department Faculty of Sciences University of Nasser Tripoli-Libya

2001-2002 Lecturer, Geophysics Department Faculty of Sciences University of Al-Fatah, Tripoli-Libya

2003-2004 - Director of the Libyan African Investment Company (Republic of Center Africa)

- General Director of COCAMINE (Compagnie Centrafricain de

Mines - Republic of Center Africa)

2004- 2020 professor , Geophysics Department Faculty of Sciences University of Al-Fatah Tripoli-Libya

Scientific membership

- Earth science Society of Libya
- Society of Exploration Geophysists (USA)
- American Association of Petroleum Geologists (USA)

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CURRICULUM VITAE

Name: Abuaisha Muftah Ali
Nationality: Libyan
Date of Birth: August, 19, 1954
Marital Status: Married
Mailing Address: Geophysics Department, Faculty of Science
P.O.Box 13555 Tripoli University, Tripoli-Libya
Phone Number 021 44 41507
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E-mail: mesallaty @ yahoo.com

Education:

PhD Charles Univ., Jun, 1999 (Goelectric & Well Logging)
Prague Czech.

M.Sc Applied Geophysics Mc Gill Univ. 1989 Montreal Canada

Graduate Diploma in Applied Geophysics Mc Gill Univ. 1987
Canada.

B.Sc 1979 Geophysical Engineering Faculty of Petroleum and Mining Engineering
Tripoli- Libya

Employment & Experience:

Exploration Department OXY Oil Company 1980-1981

Demonstrator Geophysical Engineering Dep. 1981-1984

Assistant Lecturer Geophysics Dep. Faculty of Science 1989-1993

Lecturer Geophysics Dept. 1993-1995

1995-1999 PhD Study

Assistant Professor Geophysics Dep. Faculty of Science March, 2007

Associate Professor, December, 2010

**Head of geophysical Branch Earth and Environmental Department El Mergib
University Al khomes, Libya (2001-2009).**

Teaching Experience:

Teaching both B.Sc. & M.Sc students in Electrical, Electromagnetic, Magnetic, Borehole Geophysics, Formation Evaluation Geophysical Signal Analysis and Inverse Theory in Geophysics. This includes two years of teaching at Academy of Graduate studies.

Research Experience:

Application of VES in the Investigation of Corrosion Risks for Buried Ferrous Materials: Central Plain of Libya, 2001.

Environmental Reconnaissance of Ayn-Zarah Solid Waste Disposal Using Resistivity Sounding, 2003.
Preliminary Archeological Investigation in Leptis Magna NW Libya, 2002.
Geological Mapping of Various Units of Msalatha and Surrounding Area Using Remote Sensing, 2004
Role of Applied Geophysics in Environmental Investigation: Case Studies Rview, 2006
Gravity Interpretation: part of Sirt Basin (Central North of Libya), 2007.
Reconnaissance Investigation of Inadequate Sanitation System
Pollution, Engila Area Tripoli-Libya, 2006

Résumé

Senusi Mohamed Harsha

Geophysics Dept., Faculty of Science, Tripoli - University
P.O. Box 13379,
Email: sm_harsha@yahoo.com, Mob. (+218 92 644 1507).

PERSONAL INFORMATION

To be a Lecturer in Applied Geophysics (Seismic method in general, and seismic Interpretation)

Marital Status: Married.

Nationality: Libyan Citizen.

Languages: Arabic and English.

TEACHING INTEREST

1. Introduction to Geophysics

2. Seismic data acquisition

3. Seismic data processing

4. Seismic interpretation

EDUCATION

Ph.D. Geophysics (Ph.D.) The University of Kebangsaan - Kuala Lumpur, Malaysia, 1997

Master of Science in Geophysical Science (M.Sc. Georgia institute of Technology, Atlanta-Georgia, U.S.A, 1988. # Bachelor of Geophysical Engineering (B.Sc) Faculty of Petroleum and mining Engineerin, University of Tripoli, 1980.

WORK EXPERIENCE

Jan. 1998 – Sept. 2004,

Zuetina Oil Company Exploration Geophysicist (Part Time) Tripoli, Libya.

Oct. 1997 – Jun. 2003,

Faculty of Science Adjunct Professor (Graduation Projects), Nasser University, Khoms, Libya.

Feb. 1997 - Till Now,

Co - Professor, Department of Geophysics, Faculty of Science, Tripoli University, Tripoli-Libya, (Graduation Projects, Graduate and under Graduate courses):-

under graduate courses:- I was teaching advance courses including, Introduction to Geophysics, Exploration Seismology, Seismic exploration(I), Seismic exploration (II), Seismic Interpretation, and supervised undergraduate student in their final year project and dissertations.

graduate courses:- Graduation Projects, Topics in Geophysics, Seismic Stratigraphy, Seismic interpretation and Masters theses.

Feb. 1988 - Nov. 1992,

Faculty of Science University Staff Member, Tripoli University, Geophysical Department, Duties included ~ lecturing on basic courses in geophysics covering Gravity, Magnetic and seismic methods. Also following students in their registration, setting up and correcting the exams

Sep. 1981 - Aug. 1983,

Faculty of Petroleum and Mining Engineering Teaching Assistant, Tripoli University, Libya.

Oct. 1980 - 1981 Aug.

Occidental Company Seismic Interpreter Exploration Department, Tripoli, Libya.

ACTIVITIES:-

Member of Geological Society of Libya.

Member of Geological Society of Malaysia.

Member of AAPG.

I attend many Conferences, either inside or outside Libya.

ACADEMIC AWARD

11/1982 – 03/1987 Scholarship from Libyan Government, at (U.S.A)

12/1992 – 06/1997 Scholarship from Libyan Government, at (K. L. Malaysia)

**Abdurrazaq M. A. Ushah, Ph.D. in Applied
Geophysics**

Present address: National Oil Corporation (NOC), Exploration
Department, P.O. BOX 2655 or 5335 - Tripoli Libya.

Email address: aushah@noc.ly”

Contact number: Mobil: 00218-913225491

Professional Profile:

I have more than 40 years of experience in seismic exploration (data acquisition, processing, and interpretation), Bore hole geophysics, and Potential field data (Gravity & Magnetic). I was a member of permanent committee of evaluating Geophysical service companies (acquisition and processing) and a member of management Committee of Eni-North Africa and Japex. Dr. Ushah was a chairman of management Committee of ExxonMobil and now he is a member of the TCM at NOC in Exploration Department, and a chairman of LibySPAN project. Several full text papers have been published on the application of the 2D Hilbert Transform using 3-D Gravity and Magnetic data from Sudbary Basin (Ontario-Canada) and topics in seismic data processing (Murzuq Basin, Libya). I enhanced and developed the Tekseis software (seismic data processing software produced by Teknica Oil Services in 1996-and it

was used by LPI). I was working with Mobil Oil Libya from 1980 up to 1983; my job was related to the field of seismic exploration (acquisition, and processing with SSL Company at Mobil Oil Libya Office) and borehole geophysics. After I got my MSc from Manitoba University, Canada, I joined Petroleum Research Centre which we call it now Libyan Petroleum Institute (LPI), I was working as the Head of Geophysical Section and Project Leader of Libyan Gravity Map in Exploration Department. I got one year training programme for seismic data processing with Teknica Oil Services Company in Calgary after that I moved to join the Processing Centre at LPI as processor then I became a manager of seismic processing and interpretation department. In November 2000 I started my PhD in Durham University (UK), my thesis topic was Static Problems due to Sand Dunes in NC151, Western Libya; the ProMAX package was used as processing tool in area of study. I have completed my PhD in 2004 and then started working with LPI doing some research work and publications until September 2006.

For the last of fourteen years I have been working with National Oil Corporation (NOC) as coordinator following up the geophysical activities for all the exploration oil companies which are working in Libya, I attended the work shop of the offshore Libya which was hold by British Petroleum (BP) in London on November 2007., and I attended work shop of the offshore Libya which was hold by ExxonMobil from 2nd to 5th February 2009 and TOG conference in 2012 in Tripoli Libya.

As a part time work ; I have joined the Astrlab company for one month in 2008; I have done gravity land surveying using CG5 Gravity meter in area 201(Kufra basin) for Winter Shall company. Since 1988, I have taught several courses at the University of Manitoba (Canada), Zawya University (Libya), Tripoli University (Libya), El-Mergab University (Libya), Academy of graduate studies (Libya), and Sabrata University (Libya). These courses included: Seismic Data Analysis and Processing, Introduction to Geophysics, Exploration Seismology, Applied Geophysics, Digital Signal Analysis, Physics, and Geophysics I.

Education:

2004 Ph.D. in Applied Geophysics "Static Corrections in NC151, Western Libya", Earth Sciences Department

Durham University (UK)

1986 M.Sc. in Geophysics Faculty of Science, University of Manitoba (Winnipeg, Canada).

1980 B.Sc. in Geophysical Engineering, Faculty of Petroleum and Mining Engineering, Tripoli University (Tripoli, Libya)

Other Training:

2012 Attending TOG conference, Tripoli Libya.

2010 Attended course programme in seismic data processing for two weeks (April 5-15) with Western Geco, Huston, USA.

2009 Attended the work shop of the offshore Libya which was hold by ExxonMobil in Tripoli.

2008 Attending The Fourth Symposium of The Geology of Southern Libya, November 17-20, 2008, Tripoli, Libya.

2007 EAGE*Libya 2007, 3rd North African and Mediterranean Conference & Exhibition.

2007 Attended the workshop of offshore Libya which was hold by BP in London.

2006 EAGE* Near Surface 2006 in Helsinki, 12th European Meeting of Environmental and Engineering Geophysics. Attending the 3^d Technology of Oil and Gas (TOG 2006) Conference, Tripoli-Libya.

2005 Attending First International Conference on Geophysical Exploration in Libya. EAGE * Algeria 2005, 2nd North African and Mediterranean Petroleum Conf. & Exh. (4-D Seismic Course included).

EAGE/SEG * Research Workshop "Multicomponent Seismic- Past, Present and Future".

1998 Attending first Symposium on the Geology of Murzuq Basin

1993 Seismic Data Processing Teknica Petroleum Services Ltd. Calgary, Canada (This course included a comprehensive review of seismic theory and applications of seismic data processing).

1983 Petroleum and Seismology Courses for six months University of Manitoba

1982 Six months training course for Petroleum Explorationists Jebco Company (England).

Work Experience:

2006 to 2020 Working with National Oil Corporation at Exploration Department as a coordinator following up the acquisition and processing activities in the field of geophysics.

A member of Management Committee of Japex, and Eni. A chairman of Management Committee of ExxonMobil Libya and LibyaSPAN Project Following up the geophysical activities of CO2 project

2004 to 2006 Libyan Petroleum Institute (LPI) Research Geophysicist in Exploration Department member committee of deep seismic project.

2001 to 2004 Ph.D. Student at Earth Science Department Durham University (UK)

1994 to 2000 Petroleum Research Centre, Marketing Assistance, and Manager of Seismic Data Processing and Interpretation Department

1988 to 1992 Petroleum Research Centre Research Geophysicist, Project Leader of Libyan Gravity Map Project, Head of Geophysical Section in Exploration Department

1986-1987 University of Manitoba (Canada) Worked as a researcher and taught undergraduate students

1983 to 1986 University of Manitoba Worked as a graduate student to attain M.Sc. degree

1980 to 1983 Mobil Oil Libya Worked in Exploration Department as a geophysical engineer, primarily in the field of seismic exploration (data acquisition, processing,) with some work related to borehole geophysics (well logging).

Countries of Work Experience:

Canada, Libya, and United Kingdom

List of some Publications (as a first Author):

1. Ushah, A. and Moon, W., (1986). Application of 2D Hilbert Transform For Potential Field Extrapolation, *Congressus Numerantium*, 52, 169-191.

2. Ushah, A. and Moon, W., (1986), Integration of Potential Field Data Using 2D Hilbert Transform, *European Space Agency Special Paper*, Sp – 254, 777 – 782.

3. Ushah, A., Moon, W., and Singh, V., (1987), Application of 2D Hilbert Transform for Potential Field Data Interpretation, *Proceeding for the 55th SEG Conference*, 81-87.

4. Abdurrazag Ushah, Wooil M. Moon, Vijay Singh, and Bill Bruce, (1988). Application of 2-D Hilbert Transform in Geophysical Imaging With Potential Field Data, *IEEE Transactions on Geoscience and Remote Sensing*, Vol. 26, No. 5, 502 – 510.

5. Ushah, A., (1994), Application of 2-D Hilbert Transform and Image Sharpening Techniques in 3-D Potential Field Data, *Petroleum Research Journal*, Vol. 6, 44-51.

6. Abdurrazag M. A. Ushah and N. R. Gouly, Static corrections for Vibroseis data over sand dunes in western Libya. *First-break*, December 2004, Vol.22, 33-41

7. Abdurrazag M. Ushah and N. R. Gouly, Improved Static Corrections over Sand Dunes for Seismic Line NC151-V532, Western Libya. Accepted for First International Conference on Geophysical Exploration in Libya, February 2005.

8. Abdurrazag M. Ushah and N. R. Gouly , Improved Static Corrections over Sand Dunes for Seismic Line NC151-V532, Western Libya. Extended Abstract, 2nd North African/Mediterranean Petroleum & Geosciences Conference and Exhibition, Algeria, April 2005.

9. Abdurrazag M. Ushah and N. R. Gouly, Surface-consistent residual statics Methods over Sand Dunes in Concession NC151, Western Libya.

Submitted to TOG 2006 conference, Tripoli-Libya.

10. Abdurrazag M. Ushah and N. R. Gouly, Improved Static Corrections over

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مكان وتاريخ الميلاد: 1944م – طرابلس
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المؤهل العلمي: دكتوراه
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رقم الهاتف: +218 92 879 1029
البريد الإلكتروني: ridabak@yahoo.com

1977م: محصل على درجة الدكتوراه من جامعة بيركلي كاليفورنيا الولايات المتحدة

1978م: عضو هيئة تدريس بجامعة طرابلس بقسم الهندسة الجيوفيزيائية كلية هندسة النفط والتعدين

1982م – 1988م: رئيس قسم الهندسة الجيوفيزيائية بكلية هندسة النفط والتعدين

1988م – 1995م: رئيس قسم الجيوفيزياء بكلية العلوم

1989م: متحصل على درجة أستاذ

1995م – 2014م: عضو هيئة تدريس قار بكلية العلوم قسم الجيوفيزياء

2015م – إلى الآن: أستاذ شرف بكلية العلوم قسم الجيوفيزياء

التاريخ: 2020/08/08

License Certification). 2015.

➤ BSc. in Geophysics Science. Faculty of Science, Tripoli University.Libya. Fall 2013.

Work Experiences

➤ Junior Geophysicist, daily tasks include: 2D & 3D seismic interpretations, evaluation of 3D seismic data quality, assisting in graduate students ' project studies held at work-place '. Akakus Oil Operations, Tripoli, Libya.

COMPUTER SKILLS:

➤ Microsoft-Office (2004-2019):Advanced user.

➤ Schlumberger Petral (2009-2020): Advanced user.

➤ Logplot: Basic experience.

➤ Matlab (2009-2017b) Good experience.

➤ Arcgis: Basic experience.

➤ Golden Software Surfer (v8-v13): Good experience.

➤ Senergy Interactive Petrophysics 4.2: Basic Skills.

➤ Adobe Software products (Audition, Incopy, Premiere, After Effects, Photoshop); Good experience.

➤Petrolume Engeeniring Programs (Likewise Landmark, Aspen Plus, Eclipse, Kappa): Good experince.



Curriculum Vitae (C.V.)

Name: Ahmed Salem Saheel
Libyan Petroleum Institute (LPI)
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Education :

- o Ph.D., Faculty of Science and Technology, Universiti Kebangsaan Malaysia, Malaysia, 2014.
- o MPhil, Earth Science Department, Leeds University, UK, 1995.
- o B.SC., Faculty of Petroleum & Mining Engineering, Geophysics Department, Tripoli University, Libya, 1984.

Experience:

- o Exploration Researcher coordinator in Research and development Dep. (LPI). November 2007 - 2009.
- o Coordinator of Structural Geology in Exploration and Exploitation Dep. (LPI),

2002 -2007.

- o Coordinator of Libya Area Regional Study (LARS) Project, SRK, Australia, 2004.
- o Head of Geophysical Section, Exploration Dep. (LPI), 1996-2002.
- o Head of Team of the Libya Gravity Project with Robertson UK, 2000.
- o Head of Geophysical Group for Ghadames, Sirt and Kufra basins, PRC, Project, 1998.
- o Supervisor of Gravity Team survey in Libya (International Petroleum Libyan Canadian Company, IPL), 1997.
- o Supervisor of Gravity Geophysical Team in the Ghadames Basin Project (Libya), 1994-1995.
- o Head of Gravity Acquisition Survey Tides with Gravity Project data, Libya, 1993.

Publication:

- o Ahmed. S. Saheel., **Abdulrhim Rahim Bin Samsudin., Umar Bin Hamzah**, Magnetic data for Delineating subsurface structures and Estimating Magnetic Sources Depth of Magnetic Intrusive in Farigh Area, Sirt Basin, Petroleum Research Journal, volume 22-(2016),page 85.Libyan Petroleum Institute, Tripoli-Libya..
- o Ahmed. S. Saheel., **Abdulrhim Rahim Bin Samsudin., Umar Bin Hamzah**, Gravity Data Interpretation of Sirt Basin, Libya, The 10thPostgraduate Colloquium (Faculty of Science and Technology, Universiti Kebangsaan Malaysia), 2010.
- o Ahmed. S. Saheel., **Abdulrhim Rahim Bin Samsudin., Umar Bin Hamzah**, Gravity data analysis

and interpretation of Sirt Basin, Libya, North Africa Technical Conference and Exhibition, 14-17 February 2010, Cairo, Egypt.

- ○ Ahmed. S. Saheel., **Abdulrhim Rahim Bin Samsudin., Umar Bin Hamzah**, An Interpretation of Gravity and Magnetic Data for hydrocarbon Exploration in the Sirt basin (Central North of Libya), Petroleum Geology Conference and Exhibition 2010.Kuala Lumpur.
- ○ Ahmed. S. Saheel., **Abdulrhim Rahim Bin Samsudin., Umar Bin Hamzah**, Mapping of faults in the Libyan Sirte Basin by Magnetic surveys, Journal Science of Malaysia, Volume (40) number 8 August 2011.
- ○ Ahmed. S. Saheel., **Abdulrhim Rahim Bin Samsudin., Umar Bin Hamzah**, Interpretation of the Gravity and Magnetic Anomalies of the Ajdabiya Trough in the Sirt Basin, Libya., European Journal of Scientific Research, ISSN 1450-216X Vol.43 No.3 (2010), pp.316-330.
- ○ Ahmed. S. Saheel., **Abdulrhim Rahim Bin Samsudin., Umar Bin Hamzah**, Regional geological and tectonic structures of the Sirt basin from potential field data., American Journal of Scientific and Industrial Research, 2010, 1(3): 448-462.
- ○ Ahmed. S. Saheel., **Abdulrhim Rahim Bin Samsudin., Umar Bin Hamzah**, Magnetic Data for Delineating subsurface structures and estimating Magnetic sources depth of magnetic intrusive in Farigh Area, Sirt Basin, 5th Technology of Oil and Gas Forum, Up-stream topics, Tripoli-Libya TOG-2010,Page 70.
- ○ Ahmed. S. Saheel., **Abdulrhim Rahim Bin Samsudin., Umar Bin Hamzah**, Gravity and Magnetic Signatures, Derived Crustal structure and Tectonic of Sirt Basin, Northern Central Part Of Libya, Petroleum Geology Conference and Exhibition (PGCE 2011)KL 7th and 8th March 2011,Geophysical Poster 11,page 223.
- ○ **Susanne.w., Saheel, A. S., Elmaradi. M.**, Basin Evolution from integrated seismic , Gravity, and Magnetic data interpretation in North Africa, Society of Petroleum Engineers, Marrakech, Morocco , 2008.
- ○ **Saheel . A. S, Abuaysha. M. A, Albadry. S.O.** Interpretation of gravity data, Sirt basin (Central Northern of Libya), Mediterranean Petroleum Conference of Oil and Gas ,2008, Tripoli-Libya
- ○ **Saheel . A. S., Abdenssur.K.M.,2007**, The Petroleum Potential of the North-East Libya, In: Second international conference on the geology of the Tethys, (19-22 March 2007).
- ○ **Saheel, A., Suleiman, A., 2005.** An Interpretation of Structural Map Produced from Gravity Data. EAGE, Poster, Algeria.
- ○ **Saheel, A., Suleiman, A., 2005.** Application of the Gravity Map in Libya, Libya, GEXP, Poster, Libya.
- ○ **Ebrahim, M., Henley, B., Saheel, A., 2004.** Interpretation of Gravity with Well data. TOG, Oral, Libya.
- ○ **Saheel, A., Salem, M., 2003.** Interpretation of Geophysical Data in Libya. EAGE, Poster, Tunisia,
- ○ **Saheel, A., 2002**, Interpretation of Gravity and Magnetic Data for Libyan basins. 6th International Conference of Geology of the Arab World, Poster, Cairo, Egypt.

- ○ **Saheel, A., 1999.** An interpretation of Gravity Data in the Murzuq basin, SW-Libya. Petroleum Research Journal, Libya.
- ○ **Saheel, A., 1996.** Tide the Geophysical Data in the Murzuq basin, EAGE, Poster, Tunisia.
- ○ **Clark, R., Ebinger, C., Saheel, A., 1994.** An Interpretation of Geophysical Data in the Murzuq basin, EAGE, Poster, England.

Supervision for student:

- ○ Gravity/Magnetic Data Processing and Interpretation Al-Harouj area ,CO₂ Project

Prepared by Libyan Petroleum Institute and Reid Geophysics for National Oil Corporation,2020

- ○ Gravity and Magnetic Interpretation of Concession Six , Sirt Basin, Libya. A Thesis submitted in partial of the requirement for Master Degree in Geophysics, Geophysics department, faculty of sciences, university of Tripoli-Libya. Submitted by Hisham N.Elosta. Spring 2017.
- ○ Remote sensing, Geophysical and Borehole data as tools for structural geological interpretation of Hun Graben area, west Sirt Basin for Master Degree in The Libyan Academy School of Basic Science,

Earth Sciences Department, Geological Division. Submitted by Imad. M. Alattar, Spring 2018

Activate profile for present:

- ○ Attended course programme in Petrol property Modeling in Tripoli-Libya on 6th – 9th September 2015 by Schlumberger Company.
- ○ Attended course programme in Petrol Velocity Modeling in Tripoli-Libya on 31st Aug- 3rd Sep 2015 by Schlumberger Company.
- ○ Attended course programme in Petrel Structural Modeling in Tripoli-Libya on 23rd – 26rd Aug 2015 by Schlumberger Company.
- ○ Attended course programme in Petrol Fundamentals in Tripoli-Libya on 26th -27th July 2015 by Schlumberger Company.
- ○ Attended course programme in Kingdome software in seismic data interpretation for one week (April 2014) in Faculty of Science and Technology, Universiti Kebangsaan Malaysia with IHS Energy.
- ○ Attended course programme in seismic data interpretation for one week (May 2013) in Faculty of Science and Technology, Universiti Kebangsaan Malaysia.
- ○ Project leader of reprocessing seismic data in sedimentary basins with Fugro M.C. project, 2007-2009.
- ○ Head of geophysical team in the Petroleum Evaluation in the Jafarah Basin-NW Libya, 2005-2008.
- ○ Member of Scientific Committee in Libyan Gravity Project (2003-2007).
- ○ Member of LPI Website Committee until 2008.
- ○ Attended course Basin Modelling by Eric Barres BeicipFranlab, in Libyan Petroleum Institute. Tripoli-Libya 30th October 2007.
- ○ Attended course for global tectonic and the geological time –scale by Libyan Society for Earth Sciences in Tripoli-Libya from 22-23 April 2007.

- ○ Analysis of subsurface gravity and magnetic data, Encom Company, Australia, 2004.
- ○ An interoperation of landsite with gravity and magnetic data, Encom Company , Australia,2004.
- ○ Attended course for Geology of Oil reservoirs by Yousf Abougars in Libyan Petroleum Institute from 31st May -5th Jun 2003.
- ○ Processing and interpretation of magnetic data NC179, Canada, AERO SURVEYS, 2002.
- ○ Project leader of Gravity compilation of Libya with Robertson research group. 2001.
- ○ Attended course for Assessment of geological strata by Technical and administrative development center of the National Oil Corporation from 5th -9th March, Tripoli-Libya 2000.
- ○ Training Programme for Operation and Basic Maintenance of Scintrex CG-3(AutoGrav) Gravity meter, Scintrex, Canada, 2000.
- ○ Attended course for Seismic Sequence Stratigraphy by Technical and administrative development center of the National Oil Corporation from 12th -16th September, Tripoli-Libya 1999.
- ○ Attended course programme in Oasis Montaj-Advanced data processing and analysis in Tripoli-Libya on 10th – 16th April 1999 by Geosoft Company.
- ○ Vertical and lateral faces changes in the Triassic sediments of Central and Southern England, LASOM, UK, 1997.
- ○ Attended course for Interpretation of seismic data by Technical and administrative development center of the National Oil Corporation from 22th -26th October , Tripoli-Libya 1989.
- ○ Attended course for Drilling techniques by Technical and administrative development center of the National Oil Corporation from 3rd -7th July , Tripoli-Libya 1988.

- ○ Attended course for Applied Petroleum Geology by Technical and administrative development center of the National Oil Corporation from 15th -19th February, Tripoli-Libya 1987.

Human Development

- ○ Attended the **Second Human Resources Conference** in Amman, Jordan between 13-17 April 2008.
- ○ Attended one day **Unleash Power within Fire walk**, by Anthony Robbins at Excel London Docklands, on June 22nd 2007.
- ○ Attended a course entitled **Herman Scale of Thinking** in Tripoli-Libya on 7th – 8th April 2007 by Al Qamea for Information Technology Company.
- ○ Attended five days the Course for **Photo Reading**, by Jamal Al-Mualla, President of Tony buzan, UK. Tripoli-Libya, 29th March 2007.
- ○ Attended one day **The Power of Self – Confidence**, by Dr. Ibrahim Elfiky. Cha,cmm. President of Canadian Training Centre of Human Development INC. Founder of Power Human Energy. Tripoli-Libya, 11th July 2006.
- ○ Attended five days the Course for **Art of Thinking**, by Jamal Al-Mualla, President of Tony buzan, UK. Tripoli-Libya, 1st February 2006.
- ○ Attended three days the Course for **Memory Improvement**, by Jamal Al-Mualla and Yousuf Al Khadher, President of Tony buzan, UK. Tripoli-Libya, 17th November 2005.
- ○ Attended two days the Course for **Speed Reading**, by Jamal Al-Mualla and Yousuf Al Khadher, President of Tony buzan, UK. Tripoli-Libya, 15th November 2005.

References:

- ○ Prof., Dr. Abdulrhim Rahim Bin Samsudin, School of Environment and Natural Resource Sciences, Faculty of Science and Technology, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor.

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- ○ Prof., Dr. Umar Bin Hamzah, School of Environment and Natural Resource Sciences, Faculty of Science and Technology, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor.

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- ○ Prof. Omar Hammuda, Geology Dep. Faculty of science, Geological Dep.,

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- ○ Prof. Muftah Ali Abuaysha , Faculty of science, Geophysical Dep.,

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CURRICULUM VITAE



Name: Hussin Basheir Ghanush
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Place of Birth: Tajoura, Tripoli, Libya.
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Professional Title: Researcher in Geophysics and Geology (Head of Geophysical Section)
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EDUCATION

PhD in Structural Geology, Durham University, UK (2009 - 2016)

MSc in Petroleum Geosciences and Management from Manchester University, UK (2002 - 2004).

BSc in Geophysical Engineering from Tripoli University, Tripoli – Libya (1979 -1984). Cumulative studies have yielded major degrees in geophysics and geology.

FIELDS OF EXPERTISE AND EMPLOYMENT HISTORY

From **1985 - 1992**, I worked as a Geological Engineer for the International Baroid Company (Libyan Branch) to operate a number of Baroid units used for mud logging services, subsurface geological studies for hydrocarbons and water investigations. In November **1992**, I joined the Libyan Petroleum Institute (**LPI**) (formerly Petroleum Research Centre) as an assistant researcher. I was enrolled in the Libyan Gravity Project commencing late 1992 to digitize, level and link all available gravity surveys into a coherent data set suitable for the regional exploration needs of oil and mining companies. The project followed on from a highly successful gravity project which had for the first time made available gravity data for Libya to help evaluate regional tectonics and basin structures. Other activities directly related to the project work were planning, supervision and direct involvement with the acquisition, processing, enhancement and interpretation of gravity and airborne magnetic surveys using Geosoft Oasis CURRICULUM VITAE

Montaj software. I am comfortable with industry standard software systems, such as the Geosoft – Oasis montaj, capable for quality control, gridding, enhancing, contouring, imaging, data merging, automatic profile and grid based depth estimation routines, modelling, map production etc.

2D\3D seismic interpretations using Geoframe Carisma, SeisWorks (Landmark), TrapTester, and 2D/3D Move software. The seismic interpretation include mapping subsurface geology based on robust horizon and fault interpretations, sequence stratigraphy frameworks and basin subsidence analysis.

RESEARCH PROJECTS PARTICIPATION

I participated as a geophysist in the following projects:

(June 2005 – Feb 2006) Libyan SeeBase Project (Sirt Basin area) with FROGTech Company - Australia.

(Oct 2001) High Resolution Aeromagnetic Data Acquisition project - Libya. My duties included quality control and processing of field data acquired for hydrocarbon exploration in the area of

concession **NC187**, (Murzuk Basin - Libya) for REMSA Oil Company.

(May – June 2000) Source Rock Evaluation and Petroleum Assessment of the Kufra Basin – Libya. The nature of the work was the interpretation of 2D seismic data at the LASMO headquarters in London – UK.

(June 1999 – June 2000) Re - Evaluation of the Hydrocarbon Potential in Ghadamis Basin – Libya for the National Oil Company (NOC). I developed the gravity and magnetic data used for the interpretation stage.

(Dec 1997) Gravity Data Acquisition in the survey area of concession **NC 177** (Sirt Basin - Libya) for IPL Company.

(Nov 1992 – Jun 1996) Gravity Compilation of Libya for National Oil Company (NOC), Collecting, digitizing, standardization, reduction, and interpretation of the available gravity data on a regional scale.

CONFERENCES AND PUBLICATIONS

Hussin Ghanush, (2019), Structure of the Ajdabiya Trough, NE Sirt Basin-Libya, Derived from Gravity and Magnetic Data, International Journal of Science and Research (IJSR), Volume 8 Issue 3, March 2019.

H.B. Ghanoush, J. Imber, and K. McCaffrey, (2014), Cenozoic Subsidence and Lithospheric Stretching Deformation of the Ajdabiya Trough Area, Northeast Sirt Basin, Libya, extended abstract prepared in conjunction with poster presentation at AAPG 2014 Annual Convention and Exhibition, Houston, Texas, April 6-9, 2014. CURRICULUM VITAE

Hussein Ghanoush and Milad Elmaradi, (2009), Analysis of Fault Zone Characteristics Using Potential Field and Seismic Data, Al Hagfa Trough, Sirt Basin – Libya, Petroleum Research Journal.1.vol. 21 (2008/2009); p. 67 – 80.

Hussein Ghanoush and Hasan Abubaker, (2007), Gravity and Magnetic Profile along Seismic Intersect KU-89-04, Southern Kufra Basin – Libya, The International Conference on Geo-Resources in the Middle East and North Africa, Cairo University – Egypt. GRMENA II, 2007, p. 35 – 47.

Hussein Ghanoush and Mohamed Saleem, Mapping Basement Relief and Modeling Paleo – structures Using Gravity Data: Sarir Trough Province, SE Sirt Basin – Libya (2005), The 6th Middle East and North Africa Oil and Gas Conference, Imperial College – London.

Hussein Ghanoush and Mohamed Saleem, Basement and Paleostuctural Mapping Using Gravity Data, Sarir Trough province, SE Sirt Basin – Libya (2005). The First Conference of Geophysics in Libya (Tripoli - Libya).

Hussein Ghanoush and Melad Muradi, Identification of the Minor and Major Structural Elements in Concession **6** (Sirt Basin - Libya), Using Gravity Data (2001). The 9th Conference of the Geological Society of Greece - Athens.

TRAINING COURSES

(July 1996) Siliciclastic Sequence Stratigraphy by Dr: Mike Anketel and Dr: Max Dobson from Manchester University, organized by the Libyan Petroleum Institute of Libya.

(Dec 1994) Seismic Stratigraphy by Dr: Mustafa Soula, organized by National Oil Company of Libya (NOC).

(Feb 1999) Sequence Stratigraphy by Dr Mike Anketel and Dr: Max Dobson from Manchester University organized by the Libyan Petroleum Institute of Libya.

(3 May 1998 – 3 July 1998) Training program on data compilation (leveling and standardization) at Robertson Research Headquarters, North Wiles- UK.

(May 2000) Petroleum Geochemistry and Basin Modelling by Dr Gary Cole and Rick Requejo, British Petroleum BP Headquarters - London UK.

(June 2001) A review of the interpretation of high resolution aeromagnetic data, manipulations of the industrial Geosoft software, and the construction of the Scintrex Gravimeters (type CG3) at the Aerosurveys, the Scintrex and the Geosoft Companies offices, (Uxbridge, Toronto, –

Canada). CURRICULUM VITAE

COMPUTER LITERACY AND RESEARCH RELEVANT SOFTWARE

- Various programs and software skills include (Graphics and multimedia) 1) Adobe Photoshop 2) Adobe Illustrator 3) Inkscape 4) Power Point and Paint Images.
- Geosoft Oasis Montaj software for Gravity and Magnetic interpretations
- SeisWorks (Landmark) software for seismic interpretations
- Badley's Traptester™ software for fault analysis
- 2D/3D Move software for modelling and restorations

TEACHING AND ACADEMIC CONTRIBUTIONS

- Lecturer in seismic and sequence stratigraphy at the Faculty of Sciences, Tripoli University
- MSc Project Supervisor at the Geophysical Section, Faculty of Sciences, Tripoli University
- Assisting Universities academic staff in carrying out B.Sc. projects
- Training courses to LPI juniors, entitled (Theory and Applications of Geophysical Methods Gravity, Magnetic and Seismic)

TITLES OF GRADUATE PROJECTS

- PhD thesis title (Structure and Stratigraphy of the Ajdabiya Trough area, East Sirt Basin – Libya).
- M.Sc. thesis title (3D Visualization of Late Cretaceous – Paleocene Listric Fault System in the Gjallar Ridge area, Norwegian Continental Margin).
- B.Sc. project title (Investigation of Ore Minerals Using Aeromagnetic Data, (Wadi Ashati area – Libya).



Libyan Petroleum Institute



معهد النفط الليبي

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Qualification:

PhD In 3D seismic interpretation, university of Birmingham, earth sciences department, UK (2015)
M.Sc. In Petroleum geosciences and management, University of Manchester, faculty of Engineering, department of earth sciences, UK (2005)
B.Sc. In Geophysical engineering, University of Tripoli, faculty of petroleum & Mining Engineering, Tripoli Libya (1984).

Recent activity:

- Exploration research manager in Libyan Petroleum Institute (11/2017- -->)
- Lecturer at Almergib University, Faculty of Science, Earth and Environment Science Department (9/2015 – 2/2017)
- Lecturer at Tripoli University, Faculty of Science, Geophysics Department (9/2016 – 9/2019)

- Main supervisor for three students of B.Sc. projects at Almergib University.
- Second supervisor for four students of M.Sc. projects students at Tripoli University

Work experience:

From 6.1985 – 10.1992 I joined the Libyan Baroid Company as a geological engineer (7 years), during which I have got a very wide experience about all types of operation associated with the drilling (e.g. geological cutting samples & core description, picking up the tops of formations and pay zones, gas analyses).

The oil fields in which I have got my experience are (Hamada, Abu Eltefel, Alwadi, Alwaha, and Altafadi) all of them are Libyan oil fields.

In 11.1992 I have joined the Libyan Petroleum Institute (LPI), former called Petroleum Research Centre (PRC) as an assistant researcher in the Exploration dept. I involved in the Libyan gravity compilation project, and through this project I contributed in the following:

- 1- Collecting the Gravity and Elevation data from all available sources (NOC & different oil companies).
- 2- Digitizing the gravity and elevation maps & re-plotting these maps for matching.
- 3- Standardized and compiling the whole data in order to make it at the same level.
- 4- Final processing and interpretation of the compiled data the project has been completed and the final gravity maps of Libya has been Produced.

Also during my job with LPI former PRC I was a member of several projects that carried out by PRC staff, these projects may divide into two types:

1- **projects that requested by National Oil Corporation (NOC)** such as:

A- The evaluation of Ghadamis basin: at the first stages of this project I was contributed to the interpretation of the gravity and magnetic data.

B- The revaluation of the western part of the Sirt basin: my duty was factorizing the shot point location maps of the seismic surveys in the basin and standardizing these maps with the same projection and producing a compilation base map for the basin.

C- Studying of the petroleum ability of the Jifarah plain: I was a member of the geophysical group that working on the processing and interpretation of the geophysical data (Gravity, Magnetic, and Seismic).

2 Projects that carried out as contribution studies with other international companies.

Sirte Basin exploration Risk Reduction: I was the coordinator of the PRC Staff which contribute to all stages of the project (from collecting seismic, Gravity and Magnetic data, to interpretation of this data with the Frog Tech company staff.

Paleomagnetism study in the Murzuq Basin: I was the leader of the LPI staff that involved in this joint study with the staff from Lausanne University (Switzerland), this project aims to determine the position of the Gondwana during the Paleozoic time, using the Paleomagnetism properties of the rocks.

Regional seismic study of Sirte basin (reprocessing, reinterpretation and analysis of the seismic, well log and other exploration data). The study is a joint project with Fugro data services company AG, I was one of the LPI staff involving in this project.

Studying the aquifer of the Murzuq basin: my contribution was by processing the borehole data and producing depth and thickness maps of the formations.

Fieldworks

During the first part of my carrier, 1985 – 1992 my activities were mainly in the field.

During my job in the Libyan gravity project, we had done a series of fieldwork trips for gravity measurements to different areas of Libya (eastern part, western part, middle northern part, central part).

During 12/1996 I was the PRC member who had contributed on the trip which had arranged by Industrial Research Center to Elaauinat Area in south-west Libya for minerals prospecting, for one month long.

From 1.12.1997 – 24.12.1997 I was a member of the (PRC) Gravity team who had made the gravity survey of about 600 points, in concession NC177 in Sirte basin in Libya, for the client international petroleum company of Canada (IPL).

During the first half of the year 2002, I was one of two PRC staff who was contributed to the fieldwork training program to the geophysical department students of Elfath University, the training was for one week long in the Kukla area in the west mountain of Libya.

From 20.10.2001 – 30.1.2002 I was one of two PRC staff who was involved in the airborne magnetic survey in concession NC-187 in Murzuq Basin, for Remsa Oil Company as quality control.

From 10.3.2008 – 25.3.2008 I was the LPI group leader of the paleomagnetism field trip to the rim of the Murzuq basin in the south-west Libya. Lausanne University (UNIL) and Libyan Petroleum Institute (LPI) had collected about 250 oriented samples from the different formation of the Paleozoic rocks, for the paleomagnetism study.

Also from 21-25.11.2008, I was the logistical coordinator and the representative of the earth science society of Libya (ESSL) in the geological field trip to the Ghat area (south-west Libya).

Training courses:

Local training:

Along the whole period of work I had got many training seminars on different topics (geology – Geophysics – natural gas – sequence stratigraphy – computer software.) for instance

From 6/2/1999 – 10/2/1999 I attended a seminar in sequence stratigraphy.

From 10/4/ 1999 – 16/4/1999 I attended a training program about the Oasis montaj – advanced data processing and analysis.

From 13/6/1999 – 17/6/1999 I attended a seminar entitled “Advanced formation Evaluation & computer interpretation”.

From 5/3/2000 – 9/3/2000 I attended a seminar entitled “Formation Evaluation & geological applications”.

From 28/5/2000 – 01/6/2000 I attended a course entitled “The requirement of the internet”.

From 21/10/2007 – 7/11/2007 I attended a training course entitled “acquisition, processing, and interpretation of the seismic data”.

From 27/1/2008 – 21/2/2008 I attended a training course covered the “fundamental, introduction and advanced application of the GIS”.

From 27-29/1/2009 I attended a training program about the “Kingdom software” of the seismic data interpretation

Training at international companies

From 27.4.1998 – 02.07.1998 I had got a training program in (processing & interpretation of gravity data) in the UK at Robertson research international limited company.

From 23 – 27.04.2001 I had got a seminar in (seismic velocities & depth conversion) in Tunisia.

From 02.06.2002 – 30.06.2002 another one in (processing and interpretation of the airborne magnetic data) in Uxbridge Canada at Aero surveys company.

From 30.10.2002 – 30.9.2003 M.Sc. course at the University of Manchester, UK.

From 17.01.2006 – 14.02.2006 following up the joint project (Sirte Basin exploration Risk Reduction) in FROG Tech office in Canberra- Australia.

From 28.6.2008 – 18.7.2008 following up a part of the paleomagnetism lap measurements in the Munich University and interpretation of the results in the Lausanne University. This training was related to the joint study between (LPI) and (UNIL).

From 12.8.2009 – 22.9.2010 first year of PhD study, at University of Birmingham, UK

From 1.10.2012- 30.10.2015 continuation of PhD study at University of Birmingham, UK

Publications

1- An integrated geophysical study in the Murzuq basin, South-West Libya, by A. Sahil, A. Essed, M. Saleem, *The fifth Tunisian petroleum exploration conference, Tunis, 15-18 October 1996.*

2- Tectonic Setting of the Cyrenaica Platform and Adjacent areas, NE Libya: Implication of Gravity

- Investigations, by Abdunnur Suleiman¹, Mohamed Saleem², *1st conference of the geology of east Libya*. Benghazi Libya, November 2004.
- 3- Basement and Paleostuctures Mapping Using Gravity Data, Sarir Trough Province. (SE Sirte Basin – Libya), by H. Ghanoush¹ & M. Saleem², *1st International Conference and Exhibition on Geophysical Exploration in Libya*. February 22 – 24, 2005, Tripoli, Libya.
- 4- Gravity Compilations of Libya Project: Stages Assembly, Interpretation and Project Evaluation. A. Saheel, M. Saleem, A. Suleiman, O. Hammuda & B. Mejrab, Petroleum Research Centre and A. Bizan, National Oil Corporation, Libya, *1st International Conference and Exhibition on Geophysical Exploration in Libya*. February 22 – 24, 2005, Tripoli, Libya.
- 5- Mapping Basement Relief and Modeling Paleo – Tectonic Structures Using Gravity Data, Sarir Trough Province, (SE Sirt Basin – Libya). by H. Ghanoush¹ & M. Saleem², *MENA 2005 Oil & Gas Conference, The 6th Middle East and North Africa Oil and Gas Conference*, Thursday 22 and Friday 23 September 2005, Imperial College, Exhibition Road, Kensington, London SW7, England.
- 6- 3D visualization of some intrusive igneous bodies and their relationship to fluid escape structures in the area of the Gjallar Ridge, Norwegian continental margin. By Mohamed A. Saleem, *Technology of oil and gas (TOG 2006), the 3rd international forum and exhibition*, 12-14 September 2006, Tripoli Libya.
- 7- Structural Analysis of the Ghadamis Basin NW Libya Using Gravity and Magnetic, Data, By Mohamed Saleem and Milad Elmaradi, *Global infracambrian hydrocarbon systems and the Emerging Potential in North Africa*. 29-30/11/2006.
- 8- Gravity and Magnetic Study of Northeastern Libya, BY Mohamed Saleem and Abdunnur Ben Suleiman. "EGU General Assembly 2007", 15-20/4/2007, Vienna Austria.
- 9- Subsurface structural analysis of Murzuq Basin, by M. Elmaradi and M. Saleem, the fourth symposium of the geology of the sedimentary basins of Libya (geology of southern Libya), 17-20/11/2008, Tripoli Libya.
- 10- Geophysical and geological data Analysis for a better understanding of Structural and Tectonic Evolution of Zallah Trough Southwest Sirt Basin, Libya, By Mohamed A. Saleem, Benghazi International Forum and Exhibition of Oil and Gas BIEOG 2018 (Benghazi), 9 -11 October, 2018
- 11- Structural and tectonic subsidence history study of southwestern Sirt Basin, Libya, by M. Saleem, Volume 8 Issue 3, March 2019 in International Journal of Science and Research (IJSR)

Professional Activities

A Member of European Geophysical Union

A Member of Earth Science Society of Libya.

Proved by

Mohamed A. Saleem

25.10.2020

CURRICULUM VITAE **Prof. Mohamed M. Elazezi**

PERSONAL DETAILS

Date of birth: 24 /10/1955

Nationality: Libyan

Marital Status: Married

Mailing address: e-mail: melazizi55@gmail.com

Mobile: +218-091-3834193

PROFESSIONAL PROFILE

Proven track record of thirty five years + in the petroleum industry of understanding the national and international business environment with extensive experience in initiating and leading research projects, technical and managerial positions. Also negotiating with, and working for international oil companies and the NOC.

I have gained through the mentioned years of experience a communication skills, proactive approach, and positive attitude and capability to meet the challenges and achieve my objectives.

I consider myself as a hard working person who can get the job done in a cost effective and efficient manner even under difficult circumstances with competing priorities.

Adheres to ethical business principles, creates an atmosphere of trust and confidence.

ACADEMIC QUALIFICATION

1992 Ph.D. in Geophysics, University of Aberdeen, Scotland, U. K.

1983 M.Sc. In Petroleum Geology, University of Aberdeen, Scotland, U. K.

1979 B.Sc. In Geophysics, University of Tripoli, Tripoli, Libya.

EMPLOYMENT HISTORY

2014-2020: Al Enmaa Oil & Gas Company

position: Oil & Gas Operation Manager

2012- 2014 Waha Oil Company

Position: Senior Geoscientist

2006-2011 Statoil Libya (Libyan Branch of Norwegian Oil and Gas Co.)

Position Senior Technical Advisor

2005-2006 Woodside Libya (Libyan Branch of Australian Energy Co.)

Position: Chairman of Management Committee

2004-2006 Seconded to Ministry of Energy

Position: - Head of Planning and Studies Dept.

- Chairman of financial and technical Committee - follow up of Oil Companies activities.

2002-2004 Libyan Petroleum Institute (LPI) / National Oil Corporation (NOC)

Position: - Senior Geophysicist

- Member of NOC technical committee / evaluation of Geophysical Service Companies and Processing Centers activities.

- Member NOC exploration technical team (NOC technical meetings with the operating oil companies).

1996-2002 Libyan Petroleum Institute (LPI) / Teknica Petroleum Services, Calgary, Canada.

Position: Project Manager (Evaluation of Hydrocarbon Potential, Western Sirt Basin).

1995-96 NOC Offshore Project (OGTT), Milan, Italy.

Position: Senior Staff Geophysicist

Nominated by the National Oil Corporation as a member of the Offshore Gas Technical Team (OGTT).

1979-94 Libyan Petroleum Institute (LPI).

Position: Research assistant/ Head of Geophysics Department/ Manager of Exploration Department.

ACADEMIC EXPERIENCE

2013 – Present University of Al-Zentan/ Faculty of Science/ Geology Department

Position: Member of the teaching staff (Full Professor).

1992-2004 University of Tripoli (Tripoli), University of El-Mergeb (Meselatah), and University of Al-Jabal Algarbi (Al-Zentan).

Position: Lecturer (part time).

1988-92 University of Aberdeen, Scotland, U. K. 1981-83 University of Aberdeen, Scotland, U. K.

Position: Post-graduate Student (Ph.D.).

Position: Post-graduate Student (M.Sc. in Petroleum Geology).

CONFERENCES, SEMINARS AND COURSES

Attended and participated in several internal and international technical and management events including conferences, workshops, and seminars. Publication of several scientific articles in specialized local and international journals.

RESUME

PERSONAL INFORMATION

Name: Ali Omar BenGheit.

Marital status: Married. Have four children.

Date of birth: 11 December 1955.

Place of birth: Tripoli, Libya.

Mailing address: P.O. Box 1132

Midan Al-Jazaer Post Office

Tripoli, Libya

Email: alibg1155@gmail.com

Telephone: Home: 340 0615.

Mobile: 091 214 4334.

EDUCATION

1974 High School certificate from Zawiat Eddahmani high school, Tripoli, Libya.

1980 B.Sc. degree in Geophysics from the University of Texas at Austin (UT), Department of Geological Sciences, Austin, Texas, USA.

1996 Ph.D. degree from the University of Durham, Department of Geological Sciences, Durham, England. The title of the thesis was "*The inversion of seismic reflection data from the Gialo Field, Sirte Basin*". The objective of the research was to invert post-stack seismic reflection data into acoustic impedance to delineate the Oligocene sands of the Gialo Field. In doing so inversion software was written to achieve these objectives.

PROFESSIONAL TRAINING

On the job training in 1982 which included seismic data processing at Geosource data processing center in Hays, England, and seismic data interpretation at Waha Hays Geophysical Interpretation Office in Hays, England.

Attended several petroleum-related seminar courses, both in Libya and abroad, which included the following: Applied seismic stratigraphic interpretation, Stratigraphy for geophysicists, Schlumberger well log analysis course, Seismic data processing, Sedimentological facies analysis, Seismic sequence analysis, Reservoir characterization and AVO, and Geology of Libya. Also, I have attended courses on seismic interpretation using Charisma, seismic data processing and analysis, and others.

WORK EXPERIENCE

1981-1983: Geophysicist III

Started working for Waha Oil Company's Exploration Dept. as Geophysicist III. The first year training included noise studies interpretation and field parameters determination and data acquisition, uphole interpretation and static corrections computation, and shallow seismic event interpretation and mapping.

1983-1984: Geophysicist II

The responsibilities included the structural interpretation of different Waha concession areas in the east of Sirte Basin.

1985-1986: Geophysicist specialist

Responsibilities included the seismic interpretation and prospect generation in the east and central parts of Sirte Basin.

1987-1989: Staff geophysicist

I have continued the interpretation work in the same areas with the added responsibility of training junior geophysicists. Also, during the period 1988-1989, supervised a gravity survey covering most of Waha concession areas. This project was contracted to Robertson Research of North Wales, U.K.

1997-1998: Seismic interpretation coordinator

Soon after finishing my Ph.D. work in seismic inversion at Durham in 1996, I rejoined Waha Oil Company where I resumed my 2-D and 3-D seismic interpretation work using Charisma software. I was then promoted to the post of seismic interpretation coordinator where, besides continuing the seismic interpretation, my responsibilities included the evaluation of senior geophysicist's interpretation work and generation and initiation of new seismic projects. One of the main projects I initiated was to delineate some sand pinch-outs in one of Waha's areas where stratigraphic traps are thought to must exist. We were to acquire the Jason Geosystems inversion software and use seismic inversion methods to meet these objectives. An added objective was to help the reservoir engineers to better define existing reservoirs.

1998 to 2015: working for REMSA

I Joined Repsol Exploration Murzuq S.A. (REMSA) as a Senior Geophysicist. I was first involved in QC'ing the reprocessing of older 2-D seismic data previously recorded by the previous operating company in NC186 and NC187 areas in Murzuq Basin currently held by REMSA, and QC'ing the statics computation on this data after a new uphole program was drilled over the same data. Also, I was doing the seismic interpretation of NC187 data so that horizon consistent velocity picking was done in this reprocessing. Then I was the interpreter assigned to this area.

I was later involved in the acquisition of seismic data acquired by REMSA. I have optimised acquisition parameters that REMSA inherited from seismic acquisition work previously done in NC115. These parameters were further optimised for NC190 after it was acquired by REMSA.

I have participated in the high resolution gravity program that was recorded in NC190 which had the objective of determining the locations of paleo-highs before seismic data was recorded. This work has resulted in a scientific paper that was presented in an SEG convention. I have also done seismic interpretation of the first three phases of the seismic data acquired by REMSA in NC190.

In the three years spanning 2002 through 2004 I have been involved in the seismic data processing and became the seismic data processing supervisor in REMSA. As such I have analysed processing bids submitted by processing contractors, and do the designing for the processing sequences and optimise parameters of the 2D and 3D seismic data processed for REMSA by WesternGeco in Tripoli and Cairo, Egypt, and by PSG in Cairo, and also by CGG in London England. I have done well-driven processing parameters determination with WesternGeco in Cairo for few lines that were reprocessed in NC186. The results of this work were presented in GEO EXPO 2005 earlier this year.

In 2005 through 2007 was involved in several 2D processing projects for REMSA in the Murzuq blocks NC186, NC190, NC187 and NC200, and also in the offshore blocks NC201 and NC202. Also, I was co-supervising the processing of a 3D offshore processing project of a 3D volume that has been recorded in NC201. One project in NC200 that I supervised was the P23 project which was simultaneously processed both with Geofizyka Torun in Poland and GeoTomo in Houston, Texas, USA.

In 2008 I was supervising three new seismic processing projects that have been acquired in the new Kufra basin blocks NC204, NC203 and the new Sirte basin block NC199. Later, a new survey detailing some

leads in NC203 was added which I continued to supervise its processing.

In 2009 through 2011 I was supervising the reprocessing of the NC200 3DQ seismic survey in CGG-Veritas REPSOL in-house processing Center in Madrid, Spain. The first processing was done with WesternGeco in Tripoli, Libya. This reprocessing project had the specific objectives of improving the statics, the reflection character of the important Base Tanezuft event and generally improving the S/N. These objectives were later met. Simultaneously, I was doing post-stack inversion on a sub-cube of this survey covering the E-field in NC200 using the first processing version and using the Hampson-Russell software –STRATA and EMERGE. The objective of this inversion was to try to delineate reservoir and non-reservoir facies to confirm and update specific geologic/reservoir models.

The inversion work was later extended to E, G and H fields of NC200, in Murzuq basin, using the better quality 3D volume stack reprocessed at CGG-Veritas REPSOL in-house Processing Center in Madrid.

In 2012 through 2015 I was in a group (of two people) doing inversion work in an attempt to predict lithology from seismic data. Our first project was in the M-Field area, NC115. The main objective for this inversion work was to predict lithology (differentiate between sand and shale) just below Base-Tanezuft interface. We used simultaneous inversion to estimate P-impedance (I_p) and S-impedance (I_s) to generate V_p/V_s ratio volumes. We also used colored inversion of EEI (Extended Elastic Impedance) data to generate V_p/V_s ratio volumes. These volumes were used in our attempt to predict the shale. This work was extended to two other projects further north in NC186.

We also started AVO inversion analysis in these three project areas, but the processing of the seismic gathers took too much time, and we simply ran out of time for these projects.

2015 to present: The University of Tripoli (part time).

In the fall semester of 2015 I joined the Department of Geophysics at the University of Tripoli, on a part time basis, to teach a Masters Degree level post-graduate course in Geophysics titled “Inverse Theory”. Inverse Theory is the foundation of all seismic inversion methods. I have already supervised two students on their Masters Degree projects, and currently supervising a student in a project where we attempt to predict porosity from the inversion of a seismic data volume, and good results are being obtained.

– الجدول الدراسي للبرنامج مع أسماء الأساتذة القائمين بعملية التدريس والفنيين.

– قائمة بالبحوث التي تم نشرها من قبل أعضاء هيئة التدريس خلال آخر سنتين دراسيتين.

– قائمة بالأعمال الاستشارية التي نفذها أعضاء هيئة التدريس مع ذكر اسم المنفذ للعملية الاستشارية.

– قائمة بأسماء الطاقم المساعد في تنفيذ العملية التعليمية من محاضرين – معيدين – فنيين – إداريين ذوي علاقة بالبرنامج التعليمي مع توضيح نوع الخدمة المقدمة من كل منهم وعددهم.

– السيرة الذاتية للطاقم المساعد في تنفيذ العملية التعليمية.

16. المكتبة (Library)

- مكتبة كلية العلوم.
- أيام و ساعات الدوام الرسمية حسب النظام المعمول به بالجامعة للموظفين.
- معظم المراجع للمقررات الدراسية التي يتم تدريسها بالبرنامج غير متوفرة بالمكتبة.
- المراجع الالكترونية غير متوفرة.
- لا توجد أجهزة حاسوب.
- لا توجد دوريات علمية بالمكتبة.
- لا يوجد انترنت للبحث والاطلاع.
- عدم توفر إمكانيات التصوير و الطباعة.

17. المختبرات والمعامل (Laboratories)

يجب على المؤسسة توفير:

- العدد المناسب من المختبرات اللازمة لتنفيذ البرنامج.
- مواد التشغيل وإجراء التجارب.
- المرافق المساعدة من مخازن ومعامل تجهيز تجارب.... الخ.
- التجهيزات والوسائل التعليمية المناسبة للبرنامج.

18. الملاحق (Appendices)

❖ ملحق توصيف المقررات المتمثل في نموذج رقم (6).

منسق البرنامج: أ.د. رمضان المبروك الجدي..... التوقيع

منسق الشعبة: التوقيع

رئيس القسم: أ.د. رمضان المبروك الجدي.....

الختم والتوقيع التاريخ: 2020/08/31 م

عميد الكلية: أ.د. رمضان المبروك الجدي.....

الختم والتوقيع التاريخ: 2020/08/31 م

مصفوفة أهداف البرنامج التعليمي ومخرجات التعلم المستهدفة للبرنامج التعليمي

المهارات															المعرفة والفهم (أ)					أهداف البرنامج التعليمي
المهارات العامة والمنقولة (د)					المهارات العلمية والمهنية (ج)					المهارات الذهنية (ب)										
4.د	4.د	3.د	2.د	1.د	5.ج	4.ج	3.ج	2.ج	1.ج	5.ب	4.ب	3.ب	2.ب	1.ب	5.أ	4.أ	3.أ	2.أ	1.أ	
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مصفوفة المقررات الدراسية ومخرجات التعلم المستهدفة للبرنامج التعليمي

المهارات															المعرفة والفهم (أ)					رمز المقرر الدراسي
المهارات العامة والمنقولة (د)					المهارات العلمية والمهنية (ج)					المهارات الذهنية (ب)										
4.د	4.د	3.د	2.د	1.د	5.ج	4.ج	3.ج	2.ج	1.ج	5.ب	4.ب	3.ب	2.ب	1.ب	5.أ	4.أ	3.أ	2.أ	1.أ	
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																				GP602
																				GP607
																				GPxxx
																				GPxxx
																				GP636

ملاحظة :

- 1- عدد أسابيع الفصل ستة عشر أسبوعاً منها أسبوعان للامتحانات.
- 2- عدد أسابيع السنة الدراسية ثلاثون أسبوعاً منها أسبوعان للامتحانات.